

DEVELOPMENT OF THE MOBILITY MICROAGGRESSIONS SCALE

A DISSERTATION

SUBMITTED TO THE GRADUATE SCHOOL

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE

DOCTOR OF PHILOSOPHY

BY

SCOTT ALAN FERNELIUS

DISSERTATION ADVISOR: DR. JACOB YUI-CHUNG CHAN

BALL STATE UNIVERSITY

MUNCIE, INDIANA

DECEMBER 2015

Acknowledgements

First and foremost, I would like to thank my beautiful wife, Jill, for your strength, courage, and support. To call you my rock would be my life's greatest understatement to date. The support you have provided over the past four years has allowed me to remain hopeful and focused on the ultimate goal of achieving something I once viewed as only a pipe dream. But more importantly, it will set the state for my new career in a field I am genuinely passionate about, and will allow me to make a difference in the lives of the men and women who have so bravely served our country. I am forever grateful for your love and support, and look to the future with great hope as we enter the next phase of our lives with Isaac and Alex.

I would also like to thank my doctoral committee: Drs. Bowman, Chan, Spengler, and Bantz. My path to a PhD was not a typical one, and the guidance I received from each of you is without compare. In Dr. Chan I have earned not only a lifelong colleague, but also a lifelong friend. Dr. Bowman's sage advice and wisdom kept me afloat and grounded when emotions ran high and hope was at a premium. And speaking of emotions...Dr. Spengler. Your tutelage as my first year clinical supervisor created a paradigm shift in my conceptualization of therapeutic change. I thank you all from the bottom of my heart.

When I arrived at Ball State University on 22 August 2011, very little was set in stone. I knew not the setting in which I wished to work, nor did I possess a clear vision for my scholarly research endeavors that would follow. After learning of the rehabilitation counseling cognate and reflecting on my lifelong friendship with a man diagnosed with cerebral palsy, I found my calling. The pride I have in the document you now read is also without measure, and I hope that it is but the first of many steps toward a clearer understanding of the experiences of people with disabilities, as well as a truly representative model of disability identity.

TABLE OF CONTENTS

ABSTRACT	vi
INTRODUCTION	1
Definition of Constructs.....	1
Target Population for the Present Study	3
Rationale for the Study	7
Hypotheses	9
STUDY ONE METHOD.....	9
Participants.....	10
Recruitment.....	11
Measures	11
Procedures	12
STUDY ONE RESULTS.....	13
Theme One: Treatment of Students with Disabilities.....	13
Theme Two: Discrimination	16
Theme Three: Systemic Barriers	23
Theme Four: Coping	25
STUDY ONE DISCUSSION	30
Conclusion and Implications for Future Research.....	39
STUDY TWO METHOD (Item Generation and Construction of the MMS Scale).....	41
Item Generation and Development of Initial Item Pool.....	42
Expert Review of Initial Item Pool	43
Final MMS Item Pool	45

STUDY TWO METHOD (Exploratory Factor Analysis)	46
Participants.....	47
Recruitment.....	48
Measures	49
Procedures	51
Data Normality	52
STUDY TWO RESULTS	53
Statistical Analysis	53
Factor Analysis	54
Correlations with Other Measures	55
STUDY TWO DISCUSSION.....	55
Strengths of the Present Study	59
Limitations of the Present Study.....	62
Conclusion and Implications for Future Research.....	63
REFERENCES	67
TABLE 1.....	76
TABLE 2.....	81
TABLE 3.....	83
TABLE 4.....	84
FIGURE 1	85
APPENDICES	86
A. Extended Literature Review	86
B. The Everyday Discrimination Scale	116

C. Community Integration Measure	117
D. Email to University Directors of Disability Services (Study One).....	118
E. Focus Group: Semi-Structured Interview Protocol.....	119
F. Demographic Questionnaire	120
G. IRB Approval Letter (Study One).....	122
H. Informed Consent Document (Study One)	124
I. Final Item Pool: Mobility Microaggressions Scale	126
J. Mobility Microaggressions Scale: 70-Item Participant Survey	129
K. Email to University Directors of Disability Services (Study Two)	136
L. IRB Approval Letter (Study Two).....	137
M. Informed Consent Document (Study Two).....	139

Abstract

This study presents a comprehensive overview of the construct of disability microaggressions, exploring the specific experiences of students with disabilities who require permanent use of a wheelchair. Responses gathered during a qualitative focus group of seven students with disabilities were analyzed using the Consensual Qualitative Research methodology, revealing four domains (Treatment of Students with Disabilities, Discrimination, Systemic Barriers, and Coping). The researchers based the item generation process on these domains, with expert review resulting in a 70-item version known as the Mobility Microaggressions Scale (MMS). Exploratory factor analysis provided empirical support for a final 22-item, 3-factor (Failed Interpersonal Interactions, Disability Microinvalidations, Systemic Barriers/Oppression) model, in addition to revealing strong psychometric properties (e.g., convergent validity, reliability of the overall MMS and its subscales). Implications and directions for future research are also discussed.

Keywords: microaggressions, disability, attitudes toward disability, rehabilitation psychology, disability identity, minority model of disability

Development of the Mobility Microaggressions Scale

Over the past four decades, researchers in the social sciences have placed increasing emphasis on discrimination of marginalized populations and the myriad consequences experienced by victims of discriminatory behavior. Building on the work of pioneering scholars in the study of contemporary racism (e.g., Dovidio, Gaertner, Kawakami, & Hodson, 2002; McConahay, 1986; Pierce, Carew, Pierce-Gonzalez, & Willis, 1978; Sears, 1988; Solorzano, Ceja, & Yosso, 2000), Sue et al. (2007) defined racial microaggressions as “brief and commonplace daily verbal, behavioral, or environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults toward people of color” (p. 271).

While racial and ethnic minorities have received substantial attention with regard to empirical study, Sue (2010a) asserted that many other oppressed populations are in need of further exploration in the area of microaggressions research. As such, Sue (2010b) urged researchers to expand this focus to include additional marginalized groups such as those who experience oppression due to social class and religion, sexual minorities, and people with disabilities (PWDs). To address this recommendation, the present study focuses on a specific subsection of PWDs: college students with disabilities who require *permanent* use of wheelchairs, hereafter referred to as “students with disabilities”. The goal of the present study is to develop a scale to measure the microaggressive experiences of students with disabilities, hereafter referred to as the Mobility Microaggressions Scale (MMS). It is important to note that the term “PWDs” will be utilized throughout the present study to refer to the broader population of people with *all* disabilities, while “students with disabilities” will refer specifically to college students with disabilities requiring the *permanent use* of a wheelchair.

Bolstering evidence for the need to focus on this population is the fact that disability, in its broadest form, represents the largest minority group in the United States. According to the U.S. Census Bureau (2010), approximately 56.7 million people (18.7% of the total U.S. population) have some type of disability. With regard to physical disability, roughly 41.5 million of those identified as PWDs reported a physical disability, equaling 13.6% of all U.S. citizens. The categorization of physical disability, according to the U.S. Census Bureau, includes a broad spectrum of conditions, including, yet not limited to: arthritis, cerebral palsy, traumatic brain and spinal cord injuries, kidney problems, amputation, paralysis, and deformity of limbs. Narrowing further yet to individuals requiring permanent wheelchair use, the Disability Statistics Center (2002) estimated an approximate total of 1.6 million U.S. citizens, with 11.2% of this population having earned a college degree.

Defining Disability for the Present Study

As noted above, the term disability involves a broad spectrum of conditions that impact individuals in myriad ways. Hence, the development of a scale to measure microaggressive experiences becomes a monumental task. For example, covert discrimination may differ in impact when comparing a person with a hearing disability to a person with a physical disability such as an amputation or visible burn injury. A microaggression perpetrated against an individual with visual impairment may be fundamentally different from a discriminatory experience of an individual diagnosed with a learning disability. Because no measure currently exists to capture these qualitatively differing experiences, the decision was made to focus on a form of discrimination that most closely resembles the original construct; i.e., racial and ethnic microaggressions. In many cases, race and ethnicity are immediately recognizable and visible traits. Similarly, students with disabilities are also instantly identifiable by those in their social

environment (i.e., college campuses) based on the physical and tangible qualities of the wheelchair itself.

To date, only one study (Keller & Galgay, 2010) has examined microaggressions perpetrated against the broader population of PWDs. This line of research, undoubtedly in its nascent form, requires a logical next step. Keller and Galgay initiated the study and understanding of disability microaggressions and revealed a vast area of research inquiry for future scholars to explore and delineate. However, no scale to measure these microaggressions in PWDs, much less students with disabilities, yet exists. The current study aims to develop a valid and reliable scale to measure the microaggressive experiences of a population (students with disabilities) that most closely aligns with the operational definition of the construct as it was originally devised in reference to people of color. Use of a wheelchair is an immediately recognizable characteristic, much like belonging to a specific racial or ethnic group. As such, it makes conceptual sense as a starting point on which to build the scholarly research base of the broader spectrum of disability microaggressions. Further, the work of Keller and Galgay demonstrated the negative consequences of these microaggressive exchanges, providing compelling evidence for additional exploration of this construct.

Target Population for the Present Study

Based on medical and technological breakthroughs, as well as legislative action related to accessibility, students with disabilities are now pursuing education and counseling services in greater numbers (Hadley, 2011; Wagner, Newman, Cameto, & Levine, 2005) than at any point in U.S. history. Specifically, Wagner et al. conducted a longitudinal study of 11,276 students, ages 13-16, finding that the rate of participation with postsecondary education of youth with disabilities doubled from 16% to 32% between 1987 and 2003. Students are now expected to

take on more and more responsibilities, including: 1) managing increased levels of personal freedom, 2) dealing with the unique challenges presented by their disabilities, and 3) matriculating successfully into a new collegiate environment. Challenges can also include the development of skills such as stating one's disability or discussing disability-related accommodations with professors—all strategies related to a successful transition from high school to college (Heiman & Precel 2003). These adaptations may be more challenging for students with disabilities, who often have difficulty knowing how their disability will affect them in college, including new types of testing situations and classroom instruction, social interactions, and the need to organize thoughts, information, and tasks (Banerjee & Brinckerhoff, 2002; Brinckerhoff, 1997; Janiga & Costenbader 2002; Milsom & Hartley, 2005).

Based on the difficulties in transitioning from high school to the undergraduate environment, it is helpful to clarify why students with disabilities are particularly vulnerable. The conceptual overlap between discrimination of racial and ethnic minorities and individuals who utilize wheelchairs is clear; the perpetrator can clearly see a person's skin color just as he or she is able to note that a victim requires the use of a wheelchair to aid in mobility. After making this distinction, a key statistic from the Disability Statistics Center (2002) becomes particularly salient – approximately 11.2% of people in wheelchairs had earned a college degree (Disability Statistics Center) compared with 30% of working Americans over the age of 25, according to the U.S. Census Bureau (2011). The few studies that have been conducted demonstrate that students with disabilities experience less than ideal conditions with regard to academic and physical accommodations as well as negative attitudes from peers and faculty members (Bielke & Yssel, 1999; Hill, 1996; West et al., 1993).

Indeed, Scott and Greg (2000) noted an overall paucity of literature pertaining to the perspectives of students with learning disabilities (LD) regarding faculty attitudes and responsibilities related to the provision of reasonable accommodations. The previous literature focused exclusively on students with non-apparent and nonvisible disabilities (i.e., psychiatric, LD, etc.). As such, the need for exploration of the population in this study (students with disabilities) has clearly emerged. In fact, a thorough search, including the use of EBSCOhost (keywords: attitudes, disability, discrimination, microaggressions) and an exhaustive search of leading rehabilitation psychology journals revealed not a single empirical study examining the discriminatory experiences of students with *any* type of disability. While a dearth of literature exists regarding covert discrimination in the university setting, the impact of societal attitudes toward disability is well-documented. This literature, which underscores the environmental barriers and inequality created by negative attitudes, will now be discussed.

Attitudes Toward Disability

A central component of discrimination toward PWDs is that of attitudes toward disability itself. Negative attitudes of the able-bodied majority toward disability impose significant challenges for PWDs. (c.f., Antonak & Livneh, 2000; Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003; Olkin, 1999; Vash & Crewe, 2004; Vilchinsky, Findler, & Werner, 2009; Vilchinsky, Werner, & Findler, 2010; Yunker 1994). Antonak and Livneh reported that negative attitudes toward PWDs represent subtle barriers that impede PWDs from fulfillment of their roles and achievement of life goals. Vash and Crewe further clarified the covert nature of negative attitudes:

Only rarely are attitudinal barriers manifested openly and directly, such as in expressions of distaste or avoidance of eye contact, conversation, touching, or even proximity. They

are more apt to be manifested indirectly, in the form of exclusionary practices deemed ‘necessary’ for the safety or convenience of people in general. The term ‘attitudinal barriers’ combines, in a sense, the effects of devaluative attitudes and discriminatory behavior. (p. 32)

The preceding point illustrates the need for intentionality in overturning attitudinal and systemic barriers facing PWDs. Therefore, the impetus is clear for continued research on the implications of microaggressions on people with disabilities.

Microaggressive Experiences of People with Disabilities

Previous research on the construct of microaggressions has focused primarily on the experiences of racial and ethnic minorities. Keller and Galgay (2010) theorized that, while PWDs were victims of similar discriminatory experiences outlined in previous research on racial and ethnic minorities, they may also experience unique expressions of such prejudicial treatment. To confirm this hypothesis, the researchers utilized a qualitative methodology, consensual qualitative research (CQR), to explore covert discrimination of PWDs.

Keller and Galgay (2010) stated that the primary goal of their study was to learn how subtle disability insults and invalidations occurred in interpersonal and environmental encounters, as well as to better understand the impact of disability microaggressions and the complex interplay between perpetrators and targets. They proposed an initial taxonomy of nine microaggression domains: 1) denial of identity (of personal identity, and of disability experience), 2) denial of privacy, 3) helplessness, 4) secondary gain, 5) spread effect, 6) infantilization, 7) patronization, 8) second-class citizenship, and 9) desexualization. Through the development of the preceding taxonomy, Keller and Galgay provided a foundation for

researchers to further explore the negative psychological implications of disability microaggressions.

Microaggressions Research: From Qualitative to Quantitative

Nadal (2011) noted that, while previous research in psychology has contributed tremendously to our understanding of microaggressions and their impact, researchers studying this construct have relied heavily on qualitative methodologies. Therefore, a need for quantitative exploration has arisen. Numerous researchers have constructed scales to measure microaggressions, including: the Racial and Ethnic Microaggressions Scale (Nadal, 2011); the Racial Microaggressions Scale (Torres-Harding, Andrade Jr., & Romero Diaz, 2011); and the LGBT People of Color Microaggressions Scale (Balsam, Molina, Beadnell, Simoni, & Walters, 2011). These scales were all found to be valid and reliable measures of the discriminatory experiences of the minority groups under investigation. Germane to the central focus of the present study, however, is that none of the preceding scales were designed specifically to measure the microaggressive experiences related to disability. The purpose behind microaggressions lodged against PWDs may well be similar to those perpetrated against other minority groups; however, the content of these microaggressions would differ. Thus, a scale is needed that focuses specifically on the experiences of PWDs, or in this case, students with disabilities.

Rationale for the Study

In 2003, Olkin and Pledger stated that while the field of psychology has succeeded in embracing many forms of diversity (i.e., race, ethnicity, and sexual orientation), disability as a marginalized status has been overlooked. Yet, another seven years passed before the Keller and Galgay (2010) study. It is clear that further research is needed in the field of psychology to

address discrimination of PWDs as well as to support the contention that disability is worthy of greater inclusion in the diversity and multicultural movement. Keller and Galgay provided strong evidence of the deleterious psychological impact of microaggressions against PWDs, which included guilt, anger, frustration, shame, and embarrassment. Clearly, there is much room for expansion in the area of research regarding microaggressions against PWDs. As such, the present study seeks to build upon the findings of Keller and Galgay by developing a scale to quantitatively measure the microaggressive experiences of students with disabilities.

The development of a valid, psychometrically sound scale to measure the microaggressive experiences of students with disabilities has numerous implications for research, theory development, and practice. First, such a scale would add substantively to the extant literature base by quantifying the subjective experiences of this marginalized population within the disability community. With regard to conceptualization and theory, support for the unique nature of disability microaggressions may also serve as a catalyst for the development of more fully realized identity model of disability (Dunn & Burcaw, 2013; Keller & Galgay, 2010). Perhaps of greatest significance, however, is the need for future researchers to focus attention on perpetrators of microaggressions. Previous literature (c.f., Florian, 1982; Hahn, 1985; Hahn, 1987; Mason, Pratt, Patel, Greydanus, & Yahya, 2004; Rubin & Roessler, 2008; Vash & Crewe, 2004) has demonstrated the importance of reframing the primary concern associated with disability; the disabling *environment*. As Olkin (1999) stated, the problem itself originates not with PWDs, but in their unaccommodating surroundings, thus requiring a reconceptualization of disability as a social construction. Therefore, further research is needed to develop effective means and methods for educating perpetrators regarding discriminatory attitudes and behavior. It is believed that the development of a scale to measure the microaggressive experiences of

students with disabilities will serve as the initial step toward this goal by elucidating the nature, scope, and prevalence of the problem (for an extensive review of theory and research, see Appendix A).

Hypotheses

- 1) **The proposed scale will be a reliable measure of the microaggressive experiences of students with disabilities.** The primary investigator utilized accepted scale development guidelines (DeVellis, 2012) in an attempt to demonstrate internal consistency.
- 2) **The proposed scale will be a valid measurement in microaggressive experiences of students with disabilities.** Construct validity of the MMS will be evaluated through the use of exploratory factor analysis (EFA). With regard to convergent validity, a significant positive correlation is expected between the MMS and the Everyday Discrimination Scale (EDS; Williams, Yu, Jackson, & Anderson, 1997; Appendix B). In reference to divergent validity, it is hypothesized that the MMS will not significantly correlate with the Community Integration Measure (CIM; Appendix C) created by McColl, Davies, Carlson, Johnston, and Minnes (2001). In addition, content validity will be assessed via feedback from expert reviewers and the responses of participants who complete the MMS measure.

Study One: Focus Group

Method

The principal investigator utilized Consensual Qualitative Research (CQR), a method developed by Hill, Thompson, and Williams (1997), to explore the experiences of subtle disability discrimination, or microaggressions, among a sample of students with disabilities. Building on the work of Keller and Galgay (2010), a focus group was conducted to further

elucidate participant perceptions of day-to-day experiences in the context of social interactions. Additionally, the focus group interview was utilized to reveal salient themes of disability microaggressions upon which to base the item generation process for the MMS. The use of focus groups is critical in identifying indicators of the construct, and to delineate the language used by individuals to conceptualize their subjective experiences (DeVellis, 2012). Results from this focus group study ultimately formed the foundation for the initial item generation process and subsequent construction of the MMS scale in Study Two.

Participants

Focus group participants consisted of seven students with disabilities at a mid-sized Midwestern university. Participants were recruited via email from the director of the Office of Disability Services at the university, with three potential candidates declining the invitation to participate in the study. The participants reported having the following disabilities: Duchenne Muscular Dystrophy, Spina Bifida and Scoliosis, Spinal Cord Injury (C-6), Polyostotic Fibrous Dysplasia, Werding-Hoffman Disease, and Cerebral Palsy. Six of the identified disabilities were reported as congenital; one was reported as acquired, with onset reported as age four. Four participants were female, while three were male; their ages ranged from 18 to 27 years, with a mean age of 23. Two participants were graduate students and five were pursuing undergraduate degrees. All participants identified as single and heterosexual, with socioeconomic status of “middle class,” and work status of “student.” Six participants reported their race as Caucasian, while one identified as Hispanic/Latino.

Researchers

The team of researchers for the present study included the principal investigator, three doctoral students in counseling psychology, two master’s level students enrolled in a graduate

program in clinical mental health counseling, and an undergraduate student majoring in general psychology. Due to the nature of qualitative research, it has been established as sound methodological practice that exploration and discussion of personal assumptions, biases, and values occur at the outset of (Hill et al., 2005). Previous researchers (Krueger, 1998; Polkinghorne, 2005) have identified this process of making the implicit (e.g., attitudes, beliefs, values) explicit as a way to protect against possible biases across aspects of the study itself, from the research setting and methodology, to data analysis, and interpretation. In addition, power differential was also addressed by maintaining separation between the principal investigator and coding team. This step was taken to ensure that coding team members were not biased or influenced by the principal investigator in their analysis of the qualitative data.

The research team engaged in a process-oriented meeting, approximately 1.5 hours in length, prior to the beginning of data analysis. Emphasis was placed on members' subjective understanding of disability and the beliefs and assumptions associated with this understanding, the role of ability status among the team (and potential bias that could result from the able-bodied status of each team member), discussion of previous personal and professional experiences with PWDs, and how these collective experiences could potentially influence the results of the study itself. Additionally, the coding team participated in a two-hour training session led by an experienced CQR researcher, who reviewed basic tenets of the methodology. The trainer's previous experience involved coding efforts on numerous qualitative studies, including the aforementioned work by Keller and Galgay (2010). Coders were also instructed to read and familiarize themselves with the seminal research on the CQR paradigm (Hill et al., 1997; Hill et al., 2005).

Recruitment

Subjects were recruited via email (Appendix D), with a \$10 gift card to Starbucks offered as an incentive to participate. The email solicitation was distributed to prospective participants by the director of the Office of Disability Services at the university.

Measures

A structured interview protocol was utilized (Appendix E). Permission to use this protocol was granted by its creators (Keller & Galgay, 2010). Protocol questions were specifically designed to be open-ended in nature with the intention of eliciting the lived experiences of students with disabilities with regard to disability discrimination. Examples included, “Think about some stereotypes that exist about your disability. How have others subtly expressed their stereotypical views about you?” and “What have people done or said to invalidate your experiences of being discriminated against?” The overarching goal in utilizing the protocol was to not only explore the impact of subtle disability discrimination, but to also discern the meaning that was drawn from, and assigned to, these interactions. In addition, demographic information requested included sex (gender), race/ethnicity, sexual identity, years of education, age, marital status, socioeconomic status, work status, identified disability, disability status (whether congenital or acquired), and age of disability onset (Appendix F).

Procedures

Upon receiving approval from the university’s Institutional Review Board (Appendix G), the focus group interview was conducted by a two-person team consisting of a primary facilitator and one observer, with a total duration of approximately 90 minutes. Both the facilitator and observer are members of the disability community, each identifying hearing impairment as their disability status. Due to the sensitive nature and content of the focus group interview, it was determined by the principal investigator that disclosure of disability status by the facilitator and

observer would foster rapport and minimize concerns among participants regarding their willingness to disclose about their past experiences with microaggressions by able-bodied perpetrators. As such, the primary facilitator and observer revealed their respective disabilities and affiliation with the disability community prior to the beginning of the interview.

The focus group interview was conducted in a practicum training clinic, where the session could be recorded. All participants completed and signed a consent form (Appendix H) authorizing their voluntary participation with the study. Video and audio were recorded for the purpose of transcribing the interview and then destroyed upon completion of the transcription process. The recording was transcribed by an undergraduate psychology student member of the research team, and finally checked for accuracy by the principal investigator. The transcribed interview was stored on an encrypted file which will be destroyed within three years of the completion of the present study.

Data were analyzed using CQR. Developed by Hill et al. (1997), the CQR method has been validated in numerous studies using the focus group approach (Sue, Bucceri, Lin, Nadal, & Torino, 2009; Sue, Capodilupo, & Holder, 2008; Sue et al., 2008). One doctoral student and two master's students analyzed and coded the qualitative data to identify salient themes related to covert disability discrimination. After reaching consensus on these themes, results were reviewed by the principal investigator. Finally, a doctoral student served as the auditor of the finalized data, per updated CQR guidelines (Hill et al., 2005), who closely scrutinized the work of the coding team upon completion of the auditing process, the principal investigator and the study sponsor reached agreement on the finalized list of themes, sub-themes, and core ideas.

Results

Consensual qualitative analysis, delineated below in Figure 1, revealed four broad themes: 1) Treatment of Students with Disabilities, 2) Discrimination, 3) Systemic Barriers, and 4) Coping. Additional analysis produced seven sub-themes and 23 core ideas, respectively, within the four global domains. Frequency of occurrence categories comprise the final component of analysis, based on the recommendations of Hill et al. (1997), with “general” representing results applicable to all participants, “typical” for results that apply to at least half of the responses, and finally, “variant” for results that reflect at least two to three responses, but less than half of participants. The following section will provide an overview of each theme, along with examples of data from the focus group interview.

Theme One: Treatment of Students with Disabilities

The first broad theme that emerged from the analysis was that of Treatment of Students with Disabilities. Core ideas included: 1) Inappropriate Helping, 2) Special Treatment, and 3) Overly Cautious Treatment. As the names of these core ideas indicate, and consistent with previous research inquiry into the microaggressive experiences of PWDs (Keller & Galgay, 2010), a degree of ambivalence was present among participants’ responses. While in some cases, participants noted treatment that indicated a perception of inappropriate and excessive attempts at helping when none was asked for or requested, still others identified instances which were indicative of perceived favoritism. Finally, a core idea emerged related to overly cautious treatment, which members of the research team conceptualized metaphorically as microaggressive perpetrators whose interaction with students with disabilities was tantamount to “walking on eggshells.”

Inappropriate Helping. Experiences involving perceptions of inappropriate helping were identified by three of the seven participants and generally related to the notion that able-bodied

individuals perceive students with disabilities as incapable of accomplishing basic tasks without excessive help and assistance. To illustrate, the following example outlines one respondent's experience:

I might come back and say "Yeah, I really do need help," but... I think it bothers me. I tell somebody I don't need help and they continuously ask me if I need help.

This sentiment was echoed by another participant, who described an interactional pattern with able-bodied individuals:

Or, sometimes I feel like when people are trying to help us, they don't listen to us. Like, they just automatically think they know what we want and when we tell them what we want, they're like...like they didn't listen to us.

Taken as a whole, the core idea of inappropriate helping is best characterized by the notion that students with disabilities are incapable of performing routine tasks, are in need of assistance whether it is asked for or not, and are ultimately viewed as helpless by able-bodied individuals with whom they interact.

Special Treatment. Instances of perceived special treatment were acknowledged by three of the seven participants and involved the experience of being given something without having earned it, or being given preferential treatment solely due to having a disability. Two examples specifically highlight this core idea:

When I was little I was in this traveling theater company...and I would audition every year and I got a role every year. But then the older I got, I started to think, "Are they giving me the role because I'm good at this or because I'm in a wheelchair and they just are giving it to me to give it to me?"

Here, another participant describes a related experience:

That's happened to me before but sometimes you're like "Take it," you're gracious for it, you just go on about your day. But sometimes I feel like I would rather have put forth the effort to earn those types of things than to always just be handed something like, "Oh, here you go. You're in a wheelchair. We'll just give you this."

Overly Cautious Treatment. Experiences involving perceptions of overly cautious treatment were identified by three of the seven participants. These instances were described as an excessive and self-centered focus on the part of the able-bodied individual to avoid saying or doing something that could be misconstrued as inappropriate. One example was delineated as follows:

I feel like people are, um, really almost too cautious of what they're going to say. So like, I always say that I'm going to walk to such and such place. But if they say it, they're like, "Oh, I'm sorry! You can't..."

Another participant shared a similar, more commonplace experience in their interactions with able-bodied individuals:

One thing I kind of experienced is sometimes people don't want to...it's like they think they're mean by saying no, about anything in general. They're like almost afraid to offend me.

Theme Two: Discrimination

The second broad theme identified through CQR analysis was Discrimination. Additionally, three sub-themes emerged, which included Covert, Internalized Discrimination, and Overt. Nine core ideas were identified and grouped according to sub-theme as follows: Covert (Assumption of Cognitive/Intellectual Disability, Others Amazed by Quality of Life, Failed Social Support, Preconceived Notions of students with disabilities, Unintentional Slights),

Internalized Discrimination (Internalized Ableism “Normal”), and Overt (Students with Disabilities “Not worthy of living,” Feelings of Exclusion, Family/Friend Responses to Discrimination). A strong conceptual and empirical overlap with previous research on microaggressions (Sue, 2010a; Sue, 2010b) emerged from the data, particularly with regard to the sub-theme distinctions of “Covert” and “Overt.” Where the former (covert) captures the essence of a microaggressive experience in which a slight or insult may be unintentional, or out of the conscious awareness of the perpetrator, the latter (overt) represents an outright, deliberate, or conscious effort to express feelings of inferiority from perpetrator to victim.

Covert

Assumption of Cognitive/Intellectual Disability. Instances of assumed cognitive or intellectual disabilities were reported by three of the seven participants. These reported experiences are best understood in the context of the phenomenon known as spread effect, defined as the power of one salient characteristic to elicit assumptions and inferences about a particular individual (Wright, 1983). Olkin (1999) further explicated this concept within the framework of disability:

A negative value attached to the fact of disability spreads to other unrelated aspects.

Thus, a person in a wheelchair is assumed to also be cognitively impaired; a person with mild mental retardation is viewed as more profoundly retarded; people raise their voices to talk to a person who is blind. (p. 56)

Participants noted examples that occurred in social exchanges across a variety of settings, including a specific instance in a restaurant:

When the waiter brought out the checks – this happens to me all the time – when I’m buying for someone else, I never get the checks. They always hand it to the other person.

Like, I'm not able to pay or anything like...and then I'll hand the waitress my card, but when they bring the receipt back it always goes to the other person. And it's like, it's something that always bothers me.

Other instances were shared by participants who were talked to in a manner which indicated that the perpetrator assumed intellectual impairment due to the presence of a wheelchair:

I have people talk to me as a baby or talk to me really loud and really slow. And I am like umm you don't have to do that. So... they, um, always think because you're in a wheelchair there's something wrong with your brain.

A related example was identified and delineated by an additional participant:

I feel like some people, like I said earlier, when they see that you have a visible disability, they assume you have an intellectual disability as well and that is not always the case.

Others Amazed by Quality of Life. Experiences involving this core idea were identified by four of seven participants. Congruent with previous research inquiry, a general feeling of patronization was expressed by respondents, who identified numerous personal examples of social interactions where perpetrators expressed awe and amazement simply for being out and participating with one's community. In a particularly biting conceptualization, Keller and Galgay (2010) stated, "the underlying message described by participants related to false admiration is that a PWD should be praised or admired for enduring the tortuous experience of living with a disability" (p. 255). A poignant example that aligns in near perfect fashion with this conceptualization is noted as follows:

Something that definitely bothers me is when somebody says to me, "oh, you're so inspiring. You're so amazing that you can do that" And I'm like "what?" It doesn't seem very special to me so that fact that people find it *amazing* is just...it's just like why?

Failed Social Support. Instances of failed social support were reported by three of the seven participants. Initially named by the coding team as “lack of social support,” the CQR auditor introduced the possibility that this description did not fully capture this experience as outlined by participants. Indeed, further analysis and consideration of the core idea as it was originally identified revealed that it was more accurately described as an *attempt* at social support, which ultimately *failed* in the eyes of participants who disclosed their experiences. One participant shared the following observation about a classroom exchange in which a teacher failed to provide adequate support:

The teacher knew that I had cerebral palsy and she didn't say anything, like, I left her class and I was really quiet the whole time this was going on, because again I have anxiety...so I left her class and literally broke down crying in the hall because she didn't do anything.

As previously discussed, a salient finding from general research on microaggressions (as well as empirical study of disability specific microaggressions) is the psychological impact of these experiences and the associated feelings of sadness, betrayal, anger, and myriad others that result from them.

Preconceived Notions of Students with Disabilities. Instances of failed social support were reported by two of the seven participants and reflected the degree to which they felt stereotypes and biases of PWDs impacted them. One respondent noted a sense of feeling obligated to dispel myths or preconceived notions about physical disability, while another indicated the possible role of generational influence, with the perception that older adults are generally more likely to hold stereotyped beliefs about disability. As noted within other themes,

feelings of ambivalence were identified with regard to the notion that, as human beings, we all engage in the act of prejudging others:

We all have these preconceived notions about everybody, but the way that people with disabilities are looked at, it's almost – it's slightly different.

Unintentional Slights. Aligned well with the basic definition of microaggressions, this core idea was identified by two of the seven participants, and describes the experience of students with disabilities who identified encounters with well-meaning individuals who ultimately made inappropriate or offensive statements about disability. A prime example was identified by one participant who stated:

I think that like everybody else, just the way people talk and the things they say, even if they don't mean for it to be mean and it's just kind of something you shouldn't say.

Consistent with the foundational work on microaggressions by Sue et al. (2007), an additional participant elucidated the mixed messages that are received and subsequent emotional consequences associated with such interactions:

And so like it's frustrating, because a lot of people call attention to it I think because they just don't know how to react to it. But um, it's frustrating because it singles me out, makes me feel different, like I don't know.

Internalized

Internalized Ableism “Normal.” Experiences involving Internalized Ableism were identified by two of the seven participants and related to the well-recognized tenet of disability as a deviation from normalcy (Olkin, 1999; Vash & Crewe, 2004; Wright, 1983). A foundational aspect within the scholarly literature on disability is that of the minority model, which has at its core the notion of disability as a social construction. Olkin (1999) further

described the focus of the minority model as a “shift in focus from personal, individual, and problem in isolation, to group, environment, attitudes, discrimination – from individual pathology to social oppression” (p. 28). Given the historical focus on disability as abnormal, it is not surprising that the core idea of internalized ableism emerged. Here, the subtle yet clear impact of language and societal norms is evidenced in the following participant response:

It’s like, I mean they wouldn’t, a normal person wouldn’t necessarily take offense to it, so I mean it shouldn’t be any different for being disabled.

Further attention will be devoted to the role of ableism later in the discussion section with regard to potential avenues to effect positive change at the systemic level.

Overt

Students with Disabilities “Not Worthy of Living.” Instances of this core idea were acknowledged by two of the seven participants and demonstrated direct overlap with the previously identified construct of microassault, defined by Sue et al. (2007) as a conscious and deliberate effort to convey hostile or derogatory sentiments. This core idea elicited perhaps the strongest emotional response from all seven participants, as well as from the research team who analyzed the data. The instance in question entailed a classroom setting in which the participant was debating the issue of abortion. A fellow classmate was tasked to defend the pro-choice position, and shared with the audience her stance. The participant, who identified her disability as cerebral palsy, described the classmate’s argument in the following response:

If a kid with cerebral palsy is born the parents should just abort them because they’re not going to have a normal life...I had to go to the counselor for the rest of the day and just like defuse, and I actually got sent home because it was just that traumatizing that I couldn’t go to school for the rest of the day.

An additional participant described a similar instance in which a neighbor shared her view that individuals who choose to bring a baby with disabilities into the world are “selfish.” The participant stated:

And yeah...I just walked away from her, but it’s really hard because I am like everybody else. I can have a life.

Feelings of Exclusion. Experiences of this core idea were reported by four of the seven participants and reflected a “typical” categorization as outlined by CQR methodology. Given the age range of the seven respondents, it was not surprising that numerous examples represented exclusion from extracurricular activities in high school:

And I’m like, whose fault is that for me not to play football, basically? So, they said, like, “You couldn’t have known because you didn’t play.” So it was like, I’m pretty sure that has nothing to do with it.

Another participant described a comparable instance of exclusion:

And I went to talk to the coach and she said I couldn’t be on varsity because I couldn’t do a back hand spring. So, yeah, after that I just kind of quit because I didn’t want to be part of a team that, like, didn’t feel like they wanted me on it.

An additional experience related to employment was described by a participant who outlined a pattern of job application rejections perceived as being due to disability status:

And you’re like oh, they don’t want to you know, deal with the baggage and extra stuff like that. They do it all the time but it’s all about money.

Family/Friend Responses to Discrimination. Examples of this core idea were acknowledged by three of the seven participants. Responses shared a unified theme of protectiveness on the part of individuals in the participants’ respective social support networks.

Examples included friends, siblings, and other family members who expressed strong emotion when observing perceived slights directed at the disability status of participants:

I think sometimes my friends and my family are more offended about what someone says towards me than even how I take it.

Respondents identified additional instances in which friends and family would actively confront perpetrators in social settings, particularly in situations involving handicapped parking spaces, where the notions of fairness and justice were perceived (e.g., taking advantage of the system). Further exploration of participants coping strategies (i.e., confronting versus “brushing it off”) will be discussed below.

Theme Three: Systemic Barriers

A conceptual underpinning of research in the area of microaggressions is the environmental nature of subtle discrimination, which takes the form of systemic, broad-based policies and legislation that serve to oppress and undermine marginalized groups. With this idea in mind, systemic barriers represented the third theme to emerge from the present qualitative analysis. Two sub-themes were also identified, which included Policy-Based and Location-Based barriers. Within these sub-themes, four core ideas were revealed and categorized as follows: Policy-Based (Perceived as a Social Burden), and Location-Based (Barriers to Accessibility, Environmental Barriers, and Parking Concerns).

Policy-Based

Perceived as a Social Burden. This core idea demonstrated clear overlap with the domain of second-class citizenship, previously identified by Keller and Galgay (2010). The underlying message of second-class citizenship is that rights to equality are denied due to the perception of disability as burdensome, expensive, and an overall drain on resources. In the

present study, examples of perceived social burden were acknowledged by three of the seven participants. A salient example included the following:

For instance, all I want is to get my driver's license and it's taken me two years just to do it because I'm having to do all these different things.

Here also, a participant identified feelings of ambivalence about the role of government aid:

They...it's almost like they don't want you to work so it's kind of like why am I going to school then? Get a degree and then go home to collect my government paycheck. It's really frustrating.

Echoing this sentiment, a third participant described the difficulty in becoming independent:

And the government made it really hard for, anybody, or for us to get a job because, we will lose that money that we need sometimes, to pay for medical expenses, and with me, I'm finding that I still can't get all my medicine.

Location-Based

Sharing conceptual overlap with second-class citizenship, the three core ideas that emerged from this sub-theme share the commonality of actual barriers faced by students with disabilities (along with the broader PWD population) in the context of community participation.

Barriers to Accessibility. Instances of barriers to accessibility were acknowledged by two of the seven participants and involved explicit instances where individuals were unable to obtain a good or service due to lack of disability access. In one instance, a participant discussed the challenges of accompanying friends to a social event, but experienced inordinate difficulty because of accessibility issues. Building on this difficult experience, the participant simultaneously minimized the importance of accessibility, while acknowledging the injustice inherent in experiencing it:

I know this sounds like really trivial, but water parks. I love water parks, but there's like, a ton of stairs. So like, like how is that fair?

Environmental Barriers. Experiences of this core idea were reported by two of the seven participants and reflected general challenges associated with disabilities requiring the permanent use of a wheelchair. Responses included the following:

I don't think this is people in particular, but having a wheelchair makes it difficult.

Um, there's all kinds of hoops we have to jump through to just to get everything we need.

Parking Concerns. Examples pertaining to this core idea were identified by four of the seven participants and related to issues of parking accessibility and refusal of able-bodied individuals to respect the laws associated with parking reserved for PWDs in general. One participant expressed anger and frustration at fellow drivers who impede ramp access:

The worst is when it's like motorcycles or bikes or something, you're like, "Really?"

Like, how do I get the ramp down? Just because you're a smaller vehicle doesn't mean you can park there. Like you're idiots. Why would do that? So yea that's the worst.

A related example included experiences with individuals utilizing spaces reserved for PWDs, when it is perceived that no disability was present:

Someone in the big, big, big, truck that's almost up to here to me to sit in the seat, parked in the handicapped spot, jumped out, and started running. I'm like okay. And they know I need that spot but they still take off running.

Theme Four: Coping

The fourth and final theme identified through CQR analysis was coping. In addition, two sub-themes emerged; avoidant and approaching. Seven core ideas were identified and grouped according to sub-theme as follows: Avoidant (Ignoring "Brush it Off"), Approaching (Efforts to

Ease Social Interaction, Perspective Taking “Something Else Going On,” Accessing Social Support, “Prove Them Wrong,” Disability Advocacy, and Personal Growth). The first sub-theme evidenced support for previous scholarly inquiry into the negative psychological consequences associated with subtle discrimination (Keller & Galgay, 2010; Sue 2010a; Sue 2010b). Importantly, this sub-theme was acknowledged by the largest proportion of participants (six), which lends further credence to the critical nature of this research. As can be seen, additional inquiry is not only warranted, but encouraged, as a way to further elucidate the experience of microaggressions by those who affiliate with the disability community.

Consistent with previous disability microaggressions research (Keller & Galgay, 2010), a second sub-theme emerged, consisting of a number of coping strategies noted by participants, which included resiliency, humor, and perspective-taking, the last of which related to the realization that the problem lies not within, but without (consistent with the minority model of disability discussed previously). In addition, salient work on disability identity (Dunn & Burcaw, 2013) has recently revealed the importance of personal growth and advocacy in forging both a health individual disability identity, as well as movement toward a more inclusive and disability-affirmative culture.

Avoidant

Ignoring “Brush it off.” Instances of barriers to accessibility were acknowledged by six of the seven participants and involved a range of responses to perceived discriminatory interactions. One participant recounted an experience during a commencement ceremony in which a perpetrator off-handedly asked if she and a friend were “racing” in their assistive mobility devices:

Normally I'm pretty passive. Normally I just shrug it off, but that day I was on the war path. I just wanted to cross the stage and get my diploma. So, um, I think people have good intentions, but sometimes it comes off a wrong way.

Another participant discussed the strategy of letting go rather than confronting:

I feel like, for me now, I get kind of frustrated when someone acts a certain way toward me, but I just don't really think about it too much. I'm just frustrated at the time, but later I'm just like, whatever. Like, it won't do any good for me to worry too much about it.

Yet still, another echoed the coping strategy of avoiding, but simultaneously hoping for change:

And you're just like, you just got to let it go and hope that at some point the person will experience it enough that they realize, "Okay, this person's got more going for them than I thought they did, and they're just like everybody else they're just...they have to do it a little different."

As can be seen, the use of avoidant strategies appears to provide a protective aspect, in that the victim is not tasked with "changing the world," but rather to preserve one's sense of self-esteem and identity.

Approaching

Efforts to Ease Social Interaction. Experiences of this core idea were reported by two of the seven participants and demonstrated the general theme of taking responsibility to reduce discomfort in social exchanges. One participant reflected on a previous instance:

I'm a very open person, well not always, but when I meet someone new I try to, um, tell them about my speech and about my disability so they can feel easier to talk to me.

Another participant echoed this sentiment:

I try to speak clearly so that people aren't confused.

Perspective Taking “Something Else Going On.” Examples pertaining to this core idea were identified by five of the seven participants and represented the general coping strategy that could be described as giving others the benefit of the doubt in social exchanges. One salient example was reported as follows:

I feel like if you look at the person who is aggressive towards you and say, “You know they love somebody, and somebody loves them, and they were probably just trying to come at this with a good intention.” You know, I try not to think that people have bad intentions, um, and I think that helps me.

The role of intention also factored into an additional participant’s experience:

I feel like I don’t really have to cope too much because people will say stuff and it’s not really a personal attack or anything on me. It’s just them being ignorant I guess, so it’s easy for me to just kind of, I mean get upset about it at the time a little bit. Then I just kind of know they didn’t mean to, they didn’t intentionally go out of their way to make me feel bad.

Yet another participant acknowledged the role of upbringing and the importance of educating those who might commit an unintentional slight:

It’s just something that they, like they grew up a certain way and that’s what they know and they’re just doing what they know, so when a situation comes along where they discriminate against someone with disability, it’s just kind of like a natural thing. You know, like, afterward you tell them, “This is what happened,” then they all of a sudden say, “Oh, I didn’t realize I did that,” type thing.

Accessing Social Support. Instances of accessing social support were acknowledged by four of the seven participants and involved the broader concept of seeking validation and support

in the face of discriminatory encounters. A central aspect congruent with the larger disability movement is that of universality, captured eloquently here by one participant:

Some of us in this room, that we all know each other, we all hang together and we just talk about our experiences together, and like, kind of share things that have happened to us and how that relates to each other, uh, it's kind of fun to do that. It kind of keeps us, it keeps me aware, at least, of what goes on in everyday life.

A central facet of disability studies identified by Wright (1983) is the notion of emphasizing ability and de-emphasizing deficits, captured here by another participant:

I've surrounded myself with a whole bunch of people who all know what I'm capable of and all are willing to allow me the extra time to do the things I'm capable of.

"Prove them Wrong." Experiences of this core idea were reported by four of the seven participants and tapped the underlying construct of resilience that has come to define the disability movement as a whole. These data were rich with the strength of character and integrity central to students with disabilities and the broader PWD community.

But all my life I at least have one person tell me, "Oh, you didn't do that, you didn't do this, you didn't do that." And all the things they tell me I didn't do, I do them and prove them wrong. Like I won't ever go to high school, or go to college, or be on the swim team or anything like that. And I have done all those things. So, and here I am, about to get my masters, and I'm hoping to get into doc school.

Another participant spoke about their drive to prove others wrong with regard to their intelligence and academic achievements:

And it was a really big deal for me to be in the top 25, so like people could see that and be like, “Oh, he is in a wheelchair and got in the top 25 so he must, there must not be anything wrong intellectually.”

Disability Advocacy. Examples pertaining to this core idea were identified by three of the seven participants and related to the shared perspective that positive change requires action. One respondent articulated this view as follows:

Maybe I just look at it from the aspect that, you know, I can change somebody’s outlook on how they look at somebody in a wheelchair, or how they look at somebody that you can physically tell has an impairment of some sort. If I can change their outlook to a little bit of a more positive one, then I feel like I’ve accomplished something.

Another participant’s response embodied the fire and tenacity of the disability movement as one typified by an unwavering spirit and devotion to forward progress:

You can either take it and deal with it and shrug it off all the time, or you can make a difference and you can make the world better for other people, and better for yourself, through fighting.

Personal Growth. This core idea was acknowledged by four of the seven participants and highlighted the central importance of disability to one’s identity and personal development. Here, a participant shared an example of how living with a disability has shaped his growth as a person:

And I like to think of it as like, “Okay, well it might not be the best thing for them to do but I was sent here to teach them.” I try to cope with it that way, but I honestly think I’m still learning. I’m 24, I’m still learning how to cope with it. I’m still learning how to

cope with the fact that I have a disability and I've had it since birth, so I think it's something where you're always learning.

In concert with the above reflection, another participant described the role of disability in her growth and maturation process into adulthood:

I would say it's different like besides when you get older because you get more responsible as an adult. It's definitely a key for my disability. Just more experiences through life as you get older.

Discussion

The overarching goals of the present study were as follows: 1) To build on the previous work of Keller and Galgay (2010) to further elucidate perceptions of day-to-day microaggressive experiences in the context of social interactions among students with disabilities, and 2) To identify salient themes of disability microaggressions upon which to base the item generation process for the MMS. Results of the qualitative analysis revealed four broad themes (Treatment of Students with Disabilities, Discrimination, Systemic Barriers, and Coping) along with seven sub-themes and 23 core ideas. It is important to note at the outset of the discussion section that this study targeted a highly specific subgroup within the larger disability community (currently enrolled graduate and undergraduate students whose disability requires the permanent use of a wheelchair). Therefore, discussion of these results must be interpreted carefully and with caution in reference to their generalizability to the broader population of PWDs. Bearing this in mind, results were aligned with the previous work of Keller and Galgay (2010) and also uncovered new facets of microaggressive experiences that warrant future scholarly exploration.

Theme One: Treatment of Students with Disabilities. This domain emerged with three core ideas and reflected the sense of ambivalence and mixed emotions that accompany the

experience of microaggressive behavior. Though nearly half of participants ($n = 3$) recognized instances where they were inappropriately helped when none was asked for, this same number also identified examples where they were given preferential treatment perceived as pity for individuals with disabilities. Embedded within the former core idea was the notion of students with disabilities as helpless, unable to manage their own affairs, and in need of assistance even when a clear indication has been made that none is needed. With the latter, frustration with being the object of pity emerged as participants described experiences of able-bodied individuals simply “giving” something to them with no effort expended. This was coupled with the uncertainty of how to respond or feel about such an interaction, with simultaneous feelings of gratitude and irritation noted by participants. Treatment of Students with Disabilities also contained the element of able-bodied individuals who acted in an overly cautious manner, and who were described by participants as fearful of being perceived as offensive.

The broad theme of Treatment of Students with Disabilities aligns strongly with previous work on both racial and disability microaggressions, particularly with regard to the role of intention in such interactions. In nearly all cases, participants described well-intentioned and well-meaning individuals who meant no harm or ill-will. But here, we see the inevitable sense of ambivalence that ensues in the aftermath of such interactions. Participants were left with feelings of inadequacy and confusion, particularly in cases of perceived (and unwanted) charity, or situations where able-bodied individuals seemed unsure of how to interact for fear of committing a social offense. Equally important is the idea of how to best move forward in ameliorating these uncomfortable exchanges; education and difficult dialogues, both of which are salient themes in the microaggression literature base (Sue et al., 2007; Sue, Lin, Torino, Capodilupo, & Rivera, 2009).

Theme Two: Discrimination. Second, the theme of discrimination emerged and served to corroborate previous work by Keller and Galgay (2010). Specifically, the sub-theme of “covert” and its related core ideas contained numerous examples with direct overlap. Assumption of cognitive/intellectual disability aligned seamlessly with the domain of “spread effect” (Wright, 1983) which rests on the faulty premise that a disability in one aspect of functioning (e.g., physical) indicates disability in another (e.g., cognitive). Given that the sample consisted of students currently enrolled in a public university, it is unlikely that any of the participants experienced issues with intellectual functioning. Yet, four of seven participants disclosed experiences where the presence of their physical disability led to assumptions about the presence of cognitive impairment. Microaggressive encounters primarily centered on the manner in which participants were spoken to, which included overtly altered rate of speech, described by numerous participants as “baby talk.”

The core idea of “others amazed by quality of life” also resonated strongly within the focus group, with four participants acknowledging these experiences. The false admiration associated with being perceived as an “inspiration” was met with feelings of agitation and annoyance, best captured by a response from a Keller and Galgay (2010) respondent who stated, “I get, ‘Oh, you’re such an inspiration.’ I’m like, for what? Because I get up in the morning?” (p. 255). In concert with this perspective, numerous participants expressed frustration with the misperception that simply “being out” was sufficient to bolster and sustain one’s quality of life as a person with a disability. Coping with this invalidating experience emerged as another salient theme, the implications of which will be discussed below.

An important distinction with the core idea of “failed social support” was the change identified by the CQR auditor, prompting the change from “lack of social support.” This was

identified by the research team as a critical change, because the latter was deemed as insufficient to truly capture the subjective experience outlined by various participants. In one instance, a complete lack of inaction led to intense negative emotions (failure of a teacher to aid a participant after an able-bodied student claimed that babies with disabilities should be aborted due to their inability to live a “normal” life”), while in others participants shared that they were told to let it go, that the perpetrator “must’ve meant something else.” In both cases, we see the experience of invalidation that represents a hallmark of previous research on microaggressions, which indicates the ongoing need for further efforts on how to best address such encounters.

The core idea of “internalized ableism ‘normal’” represents an intriguing area of exploration, in that the power of language becomes evident in how disability is conceptualized and referred to in the broader societal context. As previously noted, the concept of “normal versus abnormal” is one with deep theoretical and empirical backing in the study of disability (Olkin, 1999; Vash & Crewe, 2004; Wright, 1983). Internalization of disability as deviation from normalcy was noted among several participants through the language that was utilized in the focus group interview, however, the psychological implications associated with this process are not well understood. As such, internalized ableism stands as a construct that warrants further consideration and inquiry.

A third sub-theme, overt discrimination, contained two core ideas that aligned with previous research, and one area that seemed to represent a potential new avenue for disability microaggressions research. The core idea of “Students with Disabilities ‘not worth of living’” was established by the previous work of Keller and Galgay (2010), and represented in the present study by deleterious psychological consequences when confronted by able-bodied perpetrators who overtly stated that abortion was preferable to life with a disability, and relatedly, that those

who choose to bring individuals into the world are “selfish.” When the idea to develop a scale to measure the microaggressive experiences of PWDs was first conceptualized, it was Keller and Galgay’s (2010) underlying message behind the domain of helplessness, “Having a disability is a catastrophe. I would rather be dead than be you” (p. 249). As this study has revealed, the invalidating experience of having a life “not worth living” demands further exploration.

A second core idea, feelings of exclusion, also emerged. In conceptualizing the overlap of this core idea with previous empirical work on racial and ethnic microaggressions, several previous researchers (Nadal, 2009; Smith, Allen, & Danley; Sue et al., 2007) have noted a systemic component that subjugates victims to second-class status. Smith et al. (2007) put forth a framework known as “racial battle fatigue,” which described the day-to-day exhaustion of the black experience on historically white college campuses. Focus group analysis of 36 African American participants uncovered a range of psychological consequences including alienation, avoidance, hopelessness, resentment, and anxiety stemming from negative interactions with law enforcement. Though a qualitatively different experience emerged in the present study that did not involve the assumption of criminality, participants described their feelings of exclusion and second-class citizenship in scenarios where they perceived discriminatory hiring practices, invalidating comments that pushed them away from participation with extracurricular activities, and flippant remarks that demeaned their disability status and led to feelings of embarrassment, frustration, and anxiety.

A core idea that was identified as new to the experience of disability microaggressions was that of family and friend responses to discrimination. Interestingly, of the three participants to endorse this experience, a general pattern emerged linking each response, best characterized by the sense that “It bothers them more than it bothers me.” The research team discussed the

overlap with racial and ethnic microaggressions literature (Sue, 2010a; Sue 2010b; Sue et al., 2007) and the notion of choosing one's battles, or resigning oneself to the fact that, as one participant noted, "You just kind of got to let it go." The question remains, however, of what the larger-scale implications of this coping strategy might be, and this very idea will be discussed in the theme of coping below.

Theme Three: Systemic Barriers. The third theme that emerged from the present study also represented a new area of inquiry with regard to disability microaggressions. Within the sub-theme of policy-based barriers, the core theme of "perceived as a social burden" emerged, congruent with the Keller and Galgay (2010) domain of second class citizenship. Here, the unspoken message received by participants was that of disability as a burden, excessively expensive, and a drain on resources. Attitudinal literature discussed in the introduction of this study (Antonak & Livneh, 2000; Corrigan et al., 2003; Olkin, 1999; Vash & Crewe, 2004; Vilchinsky et al., 2009; Vilchinsky et al., 2010; Yuker 1994), has made clear that negative perceptions by the able-bodied majority form the foundation for the view of disability as a societal burden and impose significant challenges for PWDs.

Again, the critical need for broad-based societal change and education regarding the impact of negative attitudes toward students with disabilities (and the broader PWD population) is strongly urged. Recent studies (Nelson et al., 2011; Rillotta & Nettlebeck, 2007; Son Hing, Li, & Zanna, 2002) have highlighted the role of education in reducing the prevalence of discrimination. This educative process can take the form of addressing not only overt forms of ableism, but also those for whom such behavior may be completely out of their conscious awareness. Specifically, Rillotta and Nettlebeck (2008) examined the impact of an awareness raising program on attitudes toward intellectual disability. Results indicated that participants

who engaged in an 8-session awareness raising program demonstrated more improved attitudes toward people with intellectual disabilities than both a control group and an experimental group that engaged in a 3-session version of the same program.

The second sub-theme, location-based barriers, consisted of three core ideas (barriers to accessibility, environmental barriers, parking concerns). As noted within the core idea of feelings of exclusion, we again observe the intersection with racial and ethnic microaggressions. As several previous researchers have noted (Keller & Galgay, 2010; Nadal, 2009; Smith, Allen, & Danley; Sue et al., 2007), a sense of second-class citizenship emerged that relayed the underlying message to participants that their feelings and rights were less important than those of their able-bodied counterparts. Examples discussed during focus group dialogue included physical barriers to accessibility that limited community participation, recognition of the immense effort involved with obtaining basic services (e.g., driver's license) for those with disabilities requiring permanent use of a wheelchair, and most saliently, parking concerns. Four of seven participants noted consistent and ongoing issues with able-bodied individuals illegally parking in handicapped spaces, blocking ramp access, and a general sense of frustration and fatigue in dealing with community participation.

Theme Four: Coping. Representing a new addition to the disability microaggressions literature, coping emerged as a powerful theme representative of the collective resilience present not only within the focus group participants, but also of the spirit and strength that is widely acknowledged within the disability community as a whole. However, within this theme, analysis also revealed the hallmark trait of emotional strain (e.g., "Did that just happen?") congruent with previous empirical study of both racial and disability microaggressions. This was no more evident than in the first sub-theme, avoidant, and its lone core idea of "ignoring 'brush it off,'"

acknowledged by six of the seven participants. Here, participants spoke of frustration, anxiety, and even apathy, related to microaggressive encounters with able-bodied perpetrators. Common strategies when faced with overt discriminatory language included simply walking away from the situation, with numerous participants using the terms “brushing” or “shrugging” off the offensive statements. Consistent with the work of Keller and Galgay (2010), most participants concurred that such bigoted individuals were not worth the additional cognitive strain required to deliver a “teachable” moment.

Within the sub-theme of approaching, a salient theme that emerged was “perspective taking ‘something else going on.’” Here, five of the seven participants provided examples relating to their perceptions about the intent of able-bodied individuals in social exchanges. A sense of acceptance seemed to emerge, where an acknowledgement was made of the imperfections and shortfalls of able-bodied individuals, represented by the view that, “It’s all what you make of it.” Several participants downplayed or minimized microaggressive exchanges as ignorance and lack of understanding about the disability community, with the perspective that, all in all, most people are well-meaning and have good intentions.

The core idea of accessing social support represented a strong example of an approaching coping strategy, with four participants describing their efforts to seek counsel and validation from friends, family, and peers. Perhaps the most salient example was captured by a participant’s response delineating the importance of peers in the disability community, as points of support through challenging interactions. Scholars in the field of disability studies and the psychology of disability (Olkin, 1999; Vash & Crewe, 2004) have emphasized the aspects of universality, resilience, and community within the PWD population. Building on this idea is the conceptual framework of Wright (1983), which includes enlarging one’s scope of values,

subordination of the physique, containing the effects of disability, and transforming from comparison to asset values. This core idea was reflected across participants and demonstrates the role of resilience and social support as central to managing experiences of subtle disability discrimination.

The core ideas of “prove them wrong” and disability advocacy were supported by four and three participants, respectively, and merit simultaneous discussion due to the overlap between the two concepts. With regard to the former, numerous responses indicated a strong sense of resolve and conviction to prove to the larger able-bodied community that PWDs are not only capable of participation, but also of high achievement. With regard to disability advocacy, three respondents provided feedback in relation to their perceived role as ambassadors to the able-bodied majority on behalf of the PWD population. This is unsurprising, given the history of the disability movement, and the aforementioned emphasis within it to educate others, improve conditions, and promote greater inclusion of PWDs in society as a whole.

A final and vitally important core idea warranting further discussion is that of personal growth. Four participants delineated their perceptions of the growth involved with their respective life journeys and the influence of living with a disability on that process. This continuous and ongoing process requires constant learning and reflection, support, and resilience in the face of adversity. A particularly eloquent response from one participant highlighted the role of “self as teacher,” in that a life with disability presents an opportunity to educate others, and in turn experience the intrinsic value of making the world just a little bit better than before that exchange took place.

Conclusion and Implications for Future Research

The exploration of disability microaggressions is in its nascent stages. With only one previous publication (Keller & Galgay, 2010) to date, the need for further exploration of this construct is evident. The current study has served to bolster our understanding of subtle disability slights through the confirmation of numerous themes (treatment of students with disabilities, discrimination, systemic barriers) and core ideas (see Figure 1), while also introducing a new, previously unidentified domain (coping) that appeared to capture the process of how one manages the experience of being victimized by disability microaggressions. With regard to implications for future scholarly inquiry, researchers are encouraged to build upon the work of previous researchers, as well as the present study, to help further delineate the experience of disability microaggressions, the psychological implications of victimization, and the strategies utilized to cope with them.

In addition to further exploration of subtle disability discrimination, the present study can also serve as a catalyst for an additional area of scholarly inquiry – development of a conceptual model of disability identity. Indeed, as with disability microaggressions, a dearth of literature exists on the construct of disability identity (Olkin & Pledger, 2003), and a recent study by Dunn and Burcaw (2013) sought to provide a conceptual foundation for this important theme, describing it as follows:

Disability identity entails a positive sense of self, feelings of connection to, or solidarity with, the disability community. A coherent disability identity is believed to help individuals adapt to disability, including navigating related social stresses and daily hassles. Attention to disability narratives will enable rehabilitation psychologists to develop detailed theories and plan empirical investigations aimed at exploring the psychosocial applications of disability identity. (p. 148)

The authors outlined a number of themes integral to disability identity, prominent examples of which were personal meaning and disability discrimination. To better understand personal meaning associated with one's disability, Dunn and Burcaw stated that exploration of personal disability narratives may be a critical component to the development of a more crystalized model of disability identity. The present study, through its direct examination of seven personal narratives, has provided a small contribution to the development of such a model.

Finally, limitations of the present study must be discussed, as a number of factors related to the sample restrict generalizability to the larger population of PWDs. First, disability status of participants was limited to those who make permanent use of wheelchairs. The rationale for such a methodological choice was clear, in that disability itself is such a broad construct that exploration of discrimination required a starting point. While researchers in the present study achieved this goal, further studies must expand the scope of disability inclusion to better understand how microaggressions impact the broader population of PWDs. Second, education level of the participants (five pursuing bachelor's degrees, with two enrolled in graduate programs) was notably higher than in the general disability community. As previously noted, there are an estimated 1.6 million U.S. citizens whose disabilities require use of a wheelchair, with 11.2% of these individuals having attained a bachelor's degree or higher (Disability Statistics Center, 2002). Further exploration of PWDs at differing levels of educational attainment is therefore warranted. Finally, six of seven participants were Caucasian; a more diverse participant pool is recommended in future studies to determine generalizability of these results to the wider disability population (i.e., socioeconomic status).

Study Two: Item Generation and Construction of the MMS Scale

Method

The primary goal of item generation was to create a large pool of items to comprise the final MMS measure. DeVellis (2012) outlined multiple factors in scale development to be considered as follows: 1) creation of items reflecting the purpose of the scale, 2) redundancy, 3) total number of items, 4) identification of characteristics exemplifying good and bad items, and 5) utilization of items with positive and negative wording. The item generation process encompassed each of these steps and enlisted the services of the aforementioned five person research team.

Item Generation and Development of Initial Item Pool

Item Generation. First, creating items that reflect the purpose of the scale was addressed by placing substantial emphasis on the salient themes generated from the initial focus group analysis. DeVellis (2012) urged that scale developers must perform a thorough and exhaustive review of the scholarly literature base on the construct of interest, as well as ground the process within an identified and established theoretical framework. In reference to the former, the principal investigator acknowledges that only one study to date has focused on disability microaggressions (Keller & Galgay, 2010). As such, the nine domain disability microaggressions taxonomy identified by these authors was consulted as a secondary source to guide item generation. To address the latter, item generation was guided by the conceptual and empirical work of leading scholars in the field of microaggressions research (i.e., Sue et al., 2007).

The principal investigator made a determination at the outset of the item generation process to exclude the fourth theme (coping) identified from focus group analysis from the initial item pool. This decision was based on the premise that the process of coping with a subtle disability slight is an entirely separate construct, and therefore should not form the basis for

items exploring the experience of disability microaggressions. This left the research team with three broad themes, five sub-themes, and 16 core ideas upon which to base item generation, in addition to information from the previous study by Keller and Galgay (2010). Each member of the five-person research team independently generated 30-40 items. As a result, an initial pool of 195 items was generated for the MMS scale. The principal investigator and study sponsor then collaborated to review and refine the wording and grammatical structure of the items, which were then submitted to a two-person auditing team for expert review.

Determination of the format for measurement. A 6-point Likert format was utilized, wherein respondents were asked to indicate how often they have experienced the specified instance of subtle disability discrimination: 0 = *This has never happened to me*, 1 = *Less than once per year*, 2 = *A few times per year*, 3 = *A few times per month*, 4 = *At least once per week*, 5 = *Almost every day*.

Expert review of initial item pool. Consultation was sought from Drs. Alette Coble-Temple, an associate professor at John F. Kennedy University, and Linda Mona, a psychologist at the VA Long Beach Healthcare System. Both individuals are well regarded in the disability and rehabilitation psychology communities and also are themselves PWDs who make permanent use of wheelchairs to accommodate their respective disabilities. In reviewing the initial item pool, the expert consultants were asked to address the following points outlined by DeVellis (2012): 1) relevance of the items in measuring the construct of students with disabilities microaggressions, 2) evaluation of the clarity and conciseness of items, 3) identification of additional means to elucidate the construct that have not been included.

The expert reviewers provided insightful feedback which led to the addition, deletion, and refinement of numerous items, and importantly, identification of a core idea that required

rewording. Initially identified by the coding team as “Assumption of Mental Disability/Deficit,” both expert reviewers independently provided feedback that use of the term “deficit” was inappropriate/pejorative in the context of disability, because it serves to emphasize limitation and abnormality. Hence, the principal investigator made the determination to modify the name of this core idea to “Assumption of Cognitive/Intellectual Disability” per expert review recommendation.

An additional salient recommendation from one expert reviewer related to the core idea of inappropriate helping, which was described as having conceptual overlap with the construct of infantilization, identified by Keller and Galgay (2010) as occurring when PWDs are treated in a childlike manner by able-bodied individuals. Thus, items capturing this construct were included under the core idea of inappropriate helping in the development of the MMS. Feedback regarding disability affirmative language was also incorporated by omitting items from the final scale that included the word “despite” (e.g., People express amazement when they find out that, *despite* my disability, I am pursuing a college education). The rationale behind this decision was based on the idea that disability, in and of itself, is not an inherently negative state that must be overcome. As one example, the wording of the above item was revised as follows: “People express amazement when I tell them I am pursuing a college degree.” The principal investigator identified this change as critical, because use of the phrase “despite my disability,” could itself be construed as microaggressive in nature by students with disabilities.

An area that represented overlapping concern identified by each expert reviewer concerned the core idea of failed social support. While one reviewer highlighted the possibility of certain items insinuating manipulation on the part of an able-bodied perpetrator, the other provided feedback that certain items may indicate the presence of outright abuse. A specific

example included the following item: People try to take advantage of me due to my disability. Further discussion of this core idea entailed the possibility that such items might raise concerns of potential abuse with the Institutional Review Board. Additionally, the question was raised of whether items in this vein were truly capturing the essence of microaggressive exchanges, versus simply representing overt manipulation or abuse of individuals with disabilities. For these reasons, items under the core idea of failed social support were omitted from the final version of the MMS.

Modification of item wording represented a final area of expert review feedback. Under the domain of students with disabilities “not worth living,” an item was initially worded as follows: People tell me they cannot believe I want to be married. In order to avoid the use of heterosexist language, the use of the word “married,” was changed to “partnered.” Additional feedback was provided by one expert reviewer regarding use of the phrase, “I feel” (e.g., I feel that others treat me as if I am helpless because of my disability). Due to the subjective nature of this wording, it was recommended that use of “I feel” should be modified, or potentially omitted altogether. Based on this feedback, the principal investigator made the decision to omit use of this language from the initially generated pool of items to avoid confusion among those who would complete the scale.

Final MMS Item Pool. Further refinement of the initial 195 item pool entailed constructive examination of the focus group analysis and previous literature base on disability microaggressions, as well as incorporation of feedback from expert reviewers. Based on this additional examination, it was decided that several core ideas would be omitted from the final MMS item pool as follows: preconceived notions of students with disabilities, family/friend responses to discrimination, environmental barriers, and parking concerns. The core ideas of

preconceived notions of students with disabilities and internalized ableism “normal” were omitted due to expert reviewer feedback and that many of the items were simply too vague to identify a specific microaggressive perpetrator (e.g., people make prior assumptions about me based on my disability, I feel that systems fail to meet my needs, I feel like I do not fit the standards for what society deems as normal). Relatedly, the core idea of family/friend responses to discrimination was deleted from the final MMS item pool because of a perceived lack of clarity and potential for misunderstanding by participants. The question was raised that family members might be perceived as a “rescuer” in such an instance (e.g., my family members tend to be more protective of me than needed), and whether these situations could truly be perceived as microaggressive if it was not the student with a disability him or herself that was actually experiencing distress.

Finally, items within the core ideas under the theme of systemic barriers, environmental barriers and parking concerns, were omitted from the final MMS item pool. With regard to the former (environmental barriers), an example item included the following: I have to jump through hoops to get what I need. For the latter (parking concerns), an example item is noted here: People illegally park in handicapped spots when they do not actually need them. While both items represent examples of day-to-day experiences highlighted through focus group analysis, the rationale for the decision to exclude these core ideas was the contention that in both situations, a clear perpetrator was difficult to discern. Hence, the items did not fit conceptually with the overall aim and scope of the scale itself, and were subsequently omitted.

In total, the final MMS item pool consisted of 70 items, spanning three themes (treatment of students with disabilities, discrimination, systemic barriers), four sub-themes (covert, overt, policy-based, location-based), and 10 core ideas (inappropriate helping, special treatment, overly

cautious treatment, assumption of cognitive/intellectual disability, others amazed by quality of life, unintentional slights, students with disabilities “not worthy of living,” feelings of exclusion, perceived as a burden, and barriers to accessibility). The breakdown of the final MMS item pool is located in Appendix I, while the scale itself (as presented to participants) is located in Appendix J.

Study Two: Exploratory Factor Analysis

Method

Participants

The sample consisted of 195 participants, with 80 males, 112 females, 2 identifying as “other,” and one undisclosed response. The age range of the sample was 18-67, with 119 participants in the 18-24 range, 63 in the 25-35 range, and 13 in the 35 and up range, and one participant who did not disclose age. Racial and ethnic makeup of the sample included African American (6.2%), Hispanic/Latino (13.8%), Asian (6.2%), Caucasian (65.1%), and Native American (3.6%) participants, while 3.6% identified as “other”, and 1.5% did not disclose. The sexual identity makeup of the sample was 88.2% heterosexual, 9.2% LGBT, and 2.6% undisclosed. With regard to education, 46.7% of participants had a four-year degree, 23.6% completed some college, 13.8% held a master’s degree or beyond, 10.7% claimed a two-year degree, 3.1% had a high school diploma or GED, 1.0% reported less than high school diploma or GED, and 1.0% did not disclose their level of education. Marital status was broken down to include 87.7% single, 6.2% married, 3.6% cohabitating, and 2.6% divorced. Socioeconomic status included 43.1% reporting a household income less than \$20k, 19.5% between \$20k and \$40k, 14.4% between \$40k and \$60k, 10.3% between \$60k and \$80k, 6.2% between \$80k and \$100k, 2.1% between \$100k and \$150k, and 3.1% at \$150k or above. Work status designation

consisted of students (82.6%), employed (10.3%), unemployed (4.1%), retired (0.5%), and social security (2.1%).

For a full delineation of identified disability, please consult Table 1; broad categories of identified disability included spinal cord injury (20.6%), spinal muscular atrophy (11.2%), cerebral palsy (7.6%), spina bifida (4.1%), and muscular dystrophy (3.5%). Thirteen percent did not disclose their identified disability. Those who marked disability as “other” comprised 16.4% of the sample and included all disabilities that were not specified to a level that warranted a separate distinction, or did not clarify the nature of the disability itself (examples included, “wheelchair,” “physical disability,” and “injured in an accident”). Disability status included 115 participants with congenital disabilities (58.7%) and 80 participants with an acquired status (40.8%). Of those with an acquired disability, age of disability onset included 55 participants (28.1%) who acquired their disability at age 17 or younger, 15 participants (7.6%) who acquired their disability between the ages of 18-34, and two participants (1.0%) who acquired their disability at ages 35 and 54, respectively.

Recruitment

Participants were recruited via email (Appendix K) and informed that they would receive a \$10 Amazon gift card upon completion of the survey, provided they met criteria (disability that requires permanent use of a wheelchair and currently enrolled as an undergraduate or graduate student in an academic program at a public university). The email solicitation was distributed to prospective participants by Directors of Disability Services at the following academic institutions with whom the principal investigator had previously established relationships through prior research efforts: the University of Arizona, Ball State University, Henderson State University, the University of Illinois-Champaign, John F. Kennedy University, the University of Missouri,

the University of North Carolina at Chapel Hill, the University of Texas at Arlington, the University of Texas at Austin, the University of Wisconsin-Madison, and the University of Wisconsin-Whitewater. Additional participants were recruited via the Disabled Student Services in Higher Education listserv (<https://listserv.buffalo.edu/cgi-bin/wa?A0=DSSHE-L>), with the described mission of facilitating the sharing of information among those who provide services to students with disabilities.

Measures

The demographic questionnaire was the same version utilized in the initial focus group study (Appendix F). In addition, the newly developed MMS was administered, along with the aforementioned Everyday Discrimination Scale (EDS) and Community Integration Measure (CIM) to test the convergent and divergent validity of the MMS, respectively. The additional measures chosen for validity testing were selected based on their conceptual similarity (EDS) and conceptual dissimilarity (CIM) to the MMS.

Demographic Questionnaire. The demographic questionnaire asked participants to self-report their sex (gender), race/ethnicity, sexual identity, years of education, age, marital status, socioeconomic status, work status, identified disability, disability status (whether congenital or acquired), and age of onset (if an acquired disability).

Mobility Microaggressions Scale (MMS). As constructed for the present study, the MMS consisted of 70 items, identifying various examples of disability microaggressions. Participants were instructed to read each item and indicate how often each example had happened to them utilizing a 6-point Likert scale (0 = *this has never happened to me*, 1 = *less than once per year*, 2 = *a few times per year*, 3 = *a few times per month*, 4 = *at least once per week*, 5 = *almost every day*). Items were then summed and averaged, with higher scores

indicated increasing levels of perceived disability discrimination. Item examples included “People tell me I am an inspiration because of my disability,” “I was inappropriately asked about the nature of my disability,” and “I was perceived as a burden due to my disability.” The final 70 item MMS pool was randomized utilizing an online randomizer tool, which can be accessed at the following website: <https://www.random.org>.

Everyday Discrimination Scale (EDS). The EDS is a reliable measure (Cronbach’s $\alpha = .88$) of the experience of unfair treatment (Essed, 1991). It is a measure of the experience of unfair treatment and includes nine items that ask respondents to rate the frequency of various day-to-day experiences of discrimination. Examples include “You are treated with less courtesy than other people are” and “You receive poorer service than other people at restaurants or stores.” Responses are measured using a 6-point Likert scale (1 = *never*, 2 = *less than once a year*, 3 = *a few times a year*, 4 = *a few times a month*, 5 = *at least once a week*, 6 = *almost every day*) that are summed and averaged, with higher scores indicating a greater overall frequency of discriminatory experiences. In addition to being a reliable measure, the EDS has also demonstrated both convergent and divergent validity across myriad studies investigating the role of discrimination in the lives of racial and ethnic minorities (Barnes et al., 2004; Peek, Nunez-Smith, Drum, & Lewis, 2011; Taylor, Kamarck, & Shiffman, 2004).

Taylor et al. (2004) found a convergent validity score of $r = .42$ between the EDS and Lifetime History of Discrimination scale, as well as between the EDS and two subscales of the Diary of Ambulatory Behavioral States (DABS; a measure of environmental events that impact health); Negative Affect ($r = .37$) and Social Conflict ($r = .30$). The EDS was not found to correlate with the DABS subscale of Task Demand ($r = .21$) or Decisional Control ($r = -.20$). Additionally, Peek et al. (2004) found the EDS to correlate moderately with the Discrimination

in Medical Settings (DMS) Scale ($r = .51$), along with two of its subscales; Discrimination ($r = .45$) and Worry ($r = -.36$). Finally, Barnes et al. (2004) reported statistically significant association ($p < .001$) between the EDS and two subscales of the Center for Epidemiological Studies Depression Scale; Unfair Treatment ($b = .068$) and Personal Rejection ($b = .230$). For the current sample, the Cronbach's alpha was calculated as .89.

Community Integration Measure (CIM). The CIM is a measure consisting of 10 items that attempt to capture the participant's self-perceptions of belonging to, involvement with, and acceptance from, their respective communities. The initial validation study revealed internal consistency of .87 (McColl et al., 2001). Participant responses are assessed utilizing a 5-point Likert scale (1 = *always agree*, 2 = *sometimes agree*, 3 = *neutral*, 4 = *sometimes disagree*, 5 = *always disagree*) that are summed and averaged, with higher scores indicated higher levels of community integration. Item examples include "I feel that I am accepted in this community" and "I know the rules of this community and can fit in with them." In addition to strong internal reliability, the CIM has also established sound convergent and divergent validity across studies investigating community integration (Griffin, Hanks, & Meachen, 2010; Linden, Crothers, O'Neill, & McCann, 2005; Reistetter, Spencer, Trujillo, & Abreu, 2005).

Griffin et al. (2010) reported a positive correlation ($r = .51$) between the CIM and the Social Provision Scale (a measure of perceived social support). The authors also reported a medium, positive correlation ($r = .37$) between the CIM and the SF-12 Health Survey, as well as between the CIM and the Satisfaction with Life Events Scale (SWLS; $r = .32$). Divergent validity was reported by Griffin et al. (2010) between the CIM and the Physical Dependence subscale of the Craig Handicap Assessment and Reporting Technique – short form ($r = .04$). Reistetter et al. (2005) also reported a medium, positive correlation ($r = .343$) between the CIM

and the Community Integration Questionnaire (CIQ-R). Additionally, Reistetter et al. (2005) found a large, positive correlation ($r = .52$) between the CIM and SWLS. For the current sample, the Cronbach's alpha was calculated as .90.

Procedures

Upon receiving approval from the Institutional Review Board (Appendix L), each of the measures were made available to prospective participants via a survey generated by the principal investigator at www.bsu.qualtrics.com. The informed consent document (Appendix M) was presented at the outset of the survey, which outlined the voluntary nature of the study itself, potential risks and benefits associated with its completion, as well as contact information for the principal investigator and faculty advisor overseeing the project. The chronicity of the measures as they were administered to participants was as follows: 1) demographic questionnaire, 2) MMS, 3) EDS, and 4) CIM. Upon completion of the survey, participants were instructed to provide a valid email address to which the online \$10 Amazon gift card could be distributed.

Data Normality

Univariate and multivariate normality were assessed in accordance with the recommendations of Tabachnick and Fidell (2007). All means, minimums, and maximums were examined for each measure to ensure that they were within the accepted range. Next, all scale scores were converted to z-scores to assess univariate normality, with z-scores above 3.29 suggestive of univariate outliers. Utilizing this cut-point, no outliers were identified for the MMS, EDS, and CIM measures. Though no violations of univariate normality were found, further analyses are recommended with regard to potential multivariate outliers. Therefore, three additional tests were conducted: Mahalanobis distance, Cook's distance, and leverage.

Mahalanobis distance was computed for the grouping of indicators to follow in the subsequent multivariate analyses. Once calculated, the recommendations of Tabachnick and Fidell (2007) were followed to compare the Mahalanobis distance scores to the chi-square distribution, using the number of variables to represent the degrees of freedom. For the present analysis, the critical value was 7.815. Two of the cases included a Mahalanobis distance exceeding this magnitude. In addition, Cook's distance was examined for all scales, with the suggested critical value of 1.00. The mean Cook's distance score in the current sample was .007, with a standard deviation of .037, a minimum score of .000, and maximum of .478. Utilizing the 1.00 critical value, no problematic cases were found for Cook's distance. Finally, leverage scores were calculated for all participant responses. In line with the recommendations of Tabachnick and Fidell (2007), scores exceeding $2(k/N)$, with k representing the number of indicators, and N representing the sample size, are said to be indicative of multivariate outliers. The critical value for the present analysis was .03 and the mean leverage score was .005, with a standard deviation of .015, a minimum of .000, and a maximum of .048. Utilizing the .03 critical value, six problematic cases were identified. Cross-analysis of the preceding multivariate outliers revealed that two cases violated critical values for both Mahalanobis Distance and leverage. As such, these two cases were deleted from the final dataset for subsequent analyses.

Two final aspects of data normality are skewness and kurtosis. Generally accepted levels (West, Finch, & Curran, 1995) indicate violation of data normality for skewness and kurtosis as represented by scores above 2.0 and 7.0, respectively. For the present sample, skewness was noted as -.004, while kurtosis was identified as -1.192. As such, and in accordance with these previously identified standards, all measures utilized in the final model demonstrate normal distribution as they pertain to the sample in the present analysis.

Results

Statistical Analysis. Exploratory factor analysis (EFA) was utilized to assess the factor structure of the MMS. The use of EFA was supported by the Kaiser-Meyer-Olkin measure of sampling adequacy level (.925), which falls well above the suggested minimum score to proceed with the factor analysis statistical process (Tabachnick & Fidell, 2007). Further support for the appropriateness of factor analysis was evidenced through Barlett's test of sphericity, χ^2 (2415), 9,977.02, $p = .000$. In addition to the EFA, correlation analyses were run to evaluate the convergent and divergent validity of the MMS by examining the relationships between the MMS, EDS, and CIM measures.

Factor Analysis. The 70-item MMS was analyzed using Principal Axis Factoring with orthogonal and oblique rotations, respectively. The initial solution revealed 13 factors with eigenvalues in excess of 1.0, though further scrutiny of the scree plot demonstrated that a three-to-seven factor structure would likely provide the most suitable and parsimonious fit for the data. Extractions were forced at the 3-, 4-, 5-, and 6-factor level, with the 3-factor extraction deemed to be the most appropriate based on scree plot inspection, interpretability of factors, and intervariance among factors. The three-factor model accounted for 47.98% of the total explained variance. Item retention criteria were as follows: 1) Factor loadings greater than .45 on the primary factor, 2) A difference of .15 or higher between the item's loading on the primary factor and loadings on the other factors, 3) Deletion of items cross-loaded at a level of .32 or higher on the non-primary factors, and finally, 4) Interpretable and conceptual fit with the other items loaded on the factor. Based on these criteria, 45 items were excluded for the 3-factor varimax model.

To confirm the factor structure of the MMS, the 3-factor model was analyzed using principal axis factoring with varimax (Kaiser-Meyer-Olkin coefficient = .915) rotations. The varimax factor solution was retained due to a significantly stronger conceptual fit among the retained items as compared with other solutions. After rerunning the analysis, three additional items were omitted which did not meet the previously discussed item retention criteria, resulting in a final structure that included 22 total items. Table 2 provides an overview of the communalities, factor loadings, eigenvalues, and explained variance for the 22-item, 3-factor, principal axis factoring solution. The rotated 3-factor solution accounted for 55.9% of the total variance. Factor one (Failed Interpersonal Interactions) accounted for 37.9% of the total variance and was comprised of ten items (internal consistency, $\alpha = .89$). The second factor (Disability Microinvalidations) accounted for 11.8% of the total variance and consisted of 8 items (internal consistency, $\alpha = .90$). The third factor (Systemic Barriers/Oppression) accounted for 6.2% of the total variance and included four items (internal consistency, $\alpha = .71$). Reliability analysis of the overall revised MMS measure revealed excellent internal consistency ($\alpha = .917$). Reliability estimates for the three individual factors were as follows: Failed Interpersonal Interactions ($\alpha = .89$); Disability Microinvalidations ($\alpha = .90$); Systemic Barriers/Oppression ($\alpha = .71$). Correlations between the three factors are located in Table 3 and were all within the medium-to-large range.

Correlations With Other Measures. To assess the convergent and divergent validity of the MMS, correlations with the EDS and CIM were analyzed, with results presented in Table 4. Consistent with hypothesis two, the MMS had a positive and significant correlation with the EDS ($r = .796, p = .01$); however, a significant correlation was found with the CIM ($r = .349, p = .01$), which was not consistent with hypothesis two.

Discussion

The goal of this study was to create a valid and reliable measure of disability microaggressions, focusing specifically on college students with disabilities who make permanent use of a wheelchair, and known as the Mobility Microaggressions Scale (MMS). Utilizing the domains and sub-themes that emerged from a qualitative CQR focus-group analysis, a 22-item 3-factor scale was revealed, comprised of the following factors: 1) Failed Interpersonal Interactions, 2) Disability Microinvalidations, and 3) Systemic Barriers/Oppression. In addition, validity and reliability analyses revealed solid psychometric properties of the MMS scale itself. The final iteration of the MMS offers support for previous conceptual (Olkin, 1999; Vash & Crewe, 2004; Wright, 1983) and empirical literature (Keller & Galgay, 2010) on the microaggressive experiences of individuals with disabilities, as well as providing a firm foundation upon which to guide future research exploring the construct in further depth.

Results from a sample of 195 participants provided evidence of reliability through strong estimates of internal consistency, as well as confirmation of convergent validity through correlation with the EDS measure, demonstrating the MMS as an acceptable measure of disability microaggressions with the population investigated in the present study. Utilizing factor analytic methods, a 3-factor model was retained. In addition, the MMS was found to strongly correlate with the EDS ($r = .796, p = .01$), consistent with hypothesis two. However, a medium but significant correlation was also found with the CIM ($r = .349, p = .01$), which was not consistent with hypothesis two.

The three factors of the MMS demonstrated conceptual overlap with previous literature on the experience of covert disability discrimination. Factor one, Failed Interpersonal

Interactions, demonstrated clear association with the Keller and Galgay (2010) themes of Helplessness and Infantilization, which send the messages that the individual with a disability is either incapable of accomplishing basic tasks without assistance, or is treated like a child by an able-bodied perpetrator. Example items included, “Other people treat me as if I am helpless because of my disability,” and “I have received excessive praise for doing routine tasks without needing help from others.” An additional area of overlap with Keller and Galgay was found in two items demonstrating the construct of Secondary Gain, which is observed when able-bodied individuals feel intrinsic value by praising or doing something for a person with a disability (e.g., Jerry Lewis Telethon). Finally, the inherent complexity of interactions between students with disabilities and able-bodied individuals offered additional alignment with Keller and Galgay, as evidenced by the item, “Because of my disability, people act as if they have to ‘walk on eggshells’ around me.”

An area of concern was noted with the Failed Interpersonal Interactions factor based on the loading of three items from the Discrimination domain of the qualitative study (“Someone made an unintentionally offensive statement to me about my disability,” “I have felt like the object of pity due to my disability,” and “People avoided walking close to me on the street because of my disability.”). Despite the initial generation of these three items having occurred within the overarching theme of discrimination against students with disabilities, their inclusion on the factor one subscale made conceptual sense in the context of the overall theme of the MMS factor based on the notion that they represented a failed social exchange with an able-bodied individual.

Factor two, Disability Microinvalidations, revealed parallels with the work of Keller and Galgay (2010), particularly with regard to their identified theme of Second-Class Citizenship,

which communicates the underlying message that individuals with disabilities “are disgusting and should be avoided” (p. 250). Sample items from the MMS that illustrate this phenomenon were “Someone made me feel like my life is not worth living because I have a disability,” and “I received substandard service in a place of business due to my disability.” Conceptual alignment with the seminal work of Sue et al. (2007) was also confirmed, as noted in the factor name itself. The microinvalidation is founded on the conceptual underpinning that offensive statements are often made outside the conscious awareness of the perpetrator. In previous conceptual (Sue et al. 2007; Sue 2010a; Sue 2010b) and empirical studies (Sue et al. 2007; Sue et al. 2008; Sue et al. 2009) on racial and ethnic microaggressions, a prime example is the concept of “Alien in own land,” an instance of which occurs when a person whose physical appearance suggests foreign descent (e.g., Asian) is complimented for speaking “good English.” In such an exchange, when the perpetrator is confronted by the victim (e.g., “I should hope so, I was born and raised in Omaha, Nebraska.”), he or she may take up a defensive stance, stating, “I was trying to pay you a compliment, quit being so sensitive.” A direct correlation with the MMS is seen in the item, “I have been told that it would be better to have an abortion than to knowingly bring a child into the world with a disability,” and was culled directly from qualitative data from the focus group in Study One. Here, because the perpetrator was not confronted directly, he or she left the exchange without ever knowing that such a statement was found to be psychologically devastating for the victim (as was clearly articulated by the subject in the focus group).

Systemic Barriers/Oppression represented the third and final MMS subscale. The four items represented in this factor all demonstrably point to systemic factors that limit, or outright prevent, students with disabilities from reaching personal goals, accessing accommodations, or obtaining essential services. The four items were as follows: 1) “It is a struggle for me to obtain

basic privileges (e.g., driver's license),” 2) “Even though my university provides accommodations for individuals with disabilities, it is difficult for me to access those accommodations,” 3) “Existing legislative policies make it difficult for me to obtain employment” 4) “I was unable to use the restroom in a public place because it was not accessible to people with disabilities.” As can be clearly observed, each of the preceding items fit together and represent the myriad ways students with disabilities may encounter challenges on university campuses and beyond.

A final point of discussion relates to hypothesis two, and the failure to confirm the divergent validity between the MMS and CIM measures. In fact, validity analysis revealed a positive, medium correlation between the two scales, disconfirming the divergent validity component of hypothesis two. A potential explanation for this unexpected finding may exist in the conceptual literature (Olkin, 1999; Vash & Crewe, 2004; Wright, 1983) on a central characteristic of individuals with disabilities: resilience. The principal investigator in the present study posits that a significant and positive correlation found between the MMS and CIM measures was due to the strength and psychological resilience of students with disabilities. Returning to the results of Study One, a salient domain was “Coping”. Here, it was revealed that students with disabilities possess remarkable resilience in the face of ongoing interpersonal and systemic barriers, with coping strategies that include accessing social support, taking up an attitude to “prove them wrong” (that of the able-bodied majority), and reflection on microaggressive experiences that ultimately lead to personal growth as a result. It is likely that the unexpected positive correlation between the MMS and CIM scales is best understood by considering the possibility that students with disabilities are bound and determined to integrate

with their communities despite the able-bodied community's actions toward them, whether that takes the form of interpersonal invalidations, or widespread systemic barriers to accessibility.

Strengths of the Present Study

Numerous authors (Olkin, 1999; Olkin & Pledger, 2003; Sue 2010b; Vash & Crewe, 2004) have called for an increased focus on disability as a central component of diversity and multiculturalism in the field of psychology. Further, a recent criticism of research in the area of diversity, and microaggressions in particular, is an overreliance on qualitative methodologies (Nadal, 2011). As such, the principal investigator addressed each of these criticisms through the development of a reliable and valid scale to measure the microaggressive experiences of students with disabilities. The development of the MMS contributes to the work of future scholars by providing a foundation upon which to further explore the construct of disability microaggressions. Additionally, the target population in the present study was narrowly defined with intentionality as a starting point for research in this area. Future researchers are encouraged to expand this exploration to a more broadly defined conceptualization of disability, which may include “invisible” conditions (e.g., psychiatric disabilities).

In addition, support for the unique nature of microaggressions against students with disabilities may serve to facilitate the creation of a more fully developed model of disability identity. An emerging line of research in the field of rehabilitation psychology, disability identity was operationalized by Dunn and Burcaw (2013) as follows:

Disability identity entails a positive sense of self, feelings of connection to, or solidarity with, the disability community. A coherent disability identity is believed to help individuals adapt to disability, including navigating related social stresses and daily hassles. (p. 148)

With this in mind, however, Dunn and Burcaw stated that a dearth of literature exists on the construct of disability identity.

What are the salient aspects associated with disability identity? Personal meaning is a central component, according to Dunn and Burcaw (2013), and this is not surprising considering the strong foundation of work by pioneers such as Wright (1983) and Livneh and Antonak (1997). Part and parcel to internalizing a positive disability identity is the role of constructive acceptance of one's disability. To uncover the meaning of disability, Dunn and Burcaw posited that a way forward in developing a crystallized model of disability identity is the exploration of personal disability narratives. That is, to understand what identity *is* in relation to individuals with disabilities, an intuitive starting point is to simply *ask* them what it means to be disabled. Dunn and Burcaw explored a number of integral themes, including participation with the disability community, self-worth, activism, disability discrimination, pride in disability, and the complex interplay between personal meaning and imperfection. The present study emphasized the construct of disability discrimination specifically and as has been shown, the experience of disability microaggressions may very well play a central role in self-esteem, personal resilience (as evidenced by the emergence of the theme of Coping in Study One), and myriad other factors associated with healthy identity development.

A primary weakness of disability identity research is evidenced by the fact that there is a paucity of extant literature on this construct. Researchers such as Dunn and Burcaw (2013), as well as Bishop (2005), have highlighted the fact that much work is left to be done to more clearly delineate a model of disability identity that incorporates psychosocial adaptation. A clear recommendation is identified as the exploration of personal narratives of individuals living with disabilities. It is evident that the way forward for our profession is to increase self-awareness

and better understand the subjective experiences of the populations we purport to serve. Without this salient realization, the field of rehabilitation psychology does itself a disservice. A more fully realized model of disability identity hinges on a strong understanding of the lived experiences of students with disabilities specifically (but *all* individuals with disabilities, generally), and it is with this in mind that future researchers and clinicians should move forward in their work. It is the hope of the principal investigator that the MMS has and will forge the first step in this nascent line of scholarly inquiry.

Limitations of the Present Study

Three primary limitations are noted as threats to external validity, and identified specifically as interactions of the causal relationship with settings (Shadish, Cook, & Campbell, 2002). First, the present study focused exclusively on the population of students with disabilities in the university setting. Therefore, the question that arises is how well the results of this study will translate to the individuals with disabilities who are not currently pursuing a college degree. Because the sample was drawn from a narrowly focused population base, the potential exists that the results of this study may not be generalizable to individuals with disabilities from lower socioeconomic status who lack resources and accessibility to higher education. A related issue pertains to the generalizability of the results of this study to individuals with disabilities that do not require the permanent use of a wheelchair. This may include examples such as psychiatric disabilities (e.g., schizophrenia, PTSD), hearing or vision impairment, autism spectrum disorders, and cognitive or intellectual disabilities (e.g., Down syndrome, traumatic brain injury). As previously discussed, the principal investigator strongly encourages future researchers to broaden the exploration of disability microaggressions to disabilities beyond those requiring the

permanent use of a wheelchair, with the development of the MMS standing as the initial phase of this exciting programmatic line of research.

An additional limitation of the present study relates to the construct validity of the MMS. Acknowledgment of potential confounding factors must be considered in order to strengthen future research, and a primary concern with regard to the MMS is the inherent complexity involved with exchanges between able-bodied individuals and those with disabilities. While the present study accounted for nearly 56% of the total variance, this leaves the possibility of extraneous factors that remain unaccounted for that may potentially explain these complex interpersonal exchanges. Further, content validity may be perceived as problematic in regard to the process of reducing the initial 195 item pool to 70. Because of the subjective nature involved with expert review and the decision to eliminate the qualitative focus group theme of Coping, future studies may address this limitation through inclusion of additional items to strengthen the overall content validity of the MMS. A final limitation is the lack of confirmation of divergent validity, as noted through the use of the CIM scale in the present study. As previously discussed, the MMS was found to possess a medium positive correlation with the CIM, which was theorized to have occurred due to the resilience of students with disabilities in the face of ongoing interpersonal and systemic barriers. Based on this finding, it is vital that current and future researchers identify additional measures with which to confirm the divergent validity of the newly developed MMS scale.

Conclusion and Implications for Future Research

The current study revealed empirical and conceptual support for a 3-factor structure and provided a solid foundation upon which to guide future research in the area of disability microaggressions. However, two key themes from the Study One focus group qualitative

analysis were absent from the final iteration of the MMS, which warrants further discussion: 1) Others Amazed by Quality of Life, and 2) Assumption of Cognitive/Intellectual Disability. These results were unexpected, as both themes have been supported with previous conceptual (Dembo, Leviton, & Wright, 1975; Olkin, 1999; Wright, 1983) and empirical (Keller & Galgay, 2010) research. With regard to the former, Others Amazed by Quality of Life, the notion that individuals with disabilities as accomplishing anything beyond simply “getting up in the morning,” was a salient theme that emerged from the work of Keller and Galgay in revealing the domain of Patronization. As this was also a theme acknowledged by four of the seven participants in the initial focus group, it is surprising that this component was not present in the final iteration of the MMS, and thus, warrants further exploration in future research moving forward.

In reference to the latter, Assumption of Cognitive/Intellectual Disability, a conceptual backing was provided by Dembo et al. (1975) in describing “spread effect,” which relates to the ability of one salient characteristic to evoke assumptions and inferences about an individual. In reference to individuals with disabilities, Olkin (1999) posited that spread effect influences able-bodied individuals to perceive disabilities as more severe than they are in reality (i.e., assuming an individual in a wheelchair is also cognitively impaired). Hence, this construct was central in the item generation process for the initial development of the MMS. That the items did not load on any of the three factors was certainly surprising, and therefore warrants discussion here, as it pertains to potential avenues for future research inquiry. We urge current and future scholars who build upon the initial construction and validation of the MMS to consider the omission of items related to spread effect to guide their work in this emerging area of research.

Microaggressions research is currently occupying a central focus within the multicultural and social justice movements in the field of psychology. While initially focused primarily on racial and ethnic populations, scholarly efforts are expanding to include additional marginalized groups such as LGBT individuals, religious minorities, and individuals with disabilities (Sue, 2010b). The present study has put forth a psychometrically sound instrument, the MMS, to measure the microaggressive experiences of students with disabilities, providing a starting point for future researchers. As such, it is also critical to discuss potential implications for future research and to offer suggestions for how the MMS might offer utility to practicing psychologists and researchers.

First, the MMS may serve as an effective tool to uncover potential areas of psychological distress among students with disabilities who seek psychological treatment in university settings. Practicing psychologists may benefit from including the MMS as part of an initial intake evaluation to determine the extent and impact of disability microaggressions on possible presenting problems, and utilize the data as a means of guiding treatment. Further, recognizing the role of disability microaggressions in psychological well-being underscores the importance of recognizing intersectionality of membership in two or more oppressed groups (e.g., race/ethnicity, gender, sexual orientation) in the case conceptualization and treatment planning process. In addition to microlevel implications in the context of therapy, use of the MMS may also offer clinicians with evidence of systemic barriers that may be present in university campus settings which bolster the need for social justice and advocacy work to improve the conditions for students with disabilities, reduce barriers to accessibility, and improve overall quality of campus life. Alignment with theoretical orientations such as feminist and multicultural approaches is evident through greater inclusion of disability as a critical variable of diversity.

Second, and as noted in the discussion section of Study One, systemic change is a central goal of the multicultural and social justice movements within psychology. The MMS may serve as a cornerstone of future research endeavors as further evidence that disability represents a marginalized status, and also point to the need for programmatic research and interventions designed to educate perpetrators of disability microaggressions and reduce their overall incidence. Over the past 10-15 years, scholars (c.f., Nelson et al., 2011; Rillotta & Nettlebeck, 2007; Son Hing, Li, & Zanna, 2002) have underscored the positive impact of raising awareness through educational initiatives to reducing the prevalence of discrimination. These programs can be designed to address both overt examples of disability discrimination, but also more subtle forms that may be perpetrated without conscious awareness.

Finally, scholars are encouraged to build upon the present study by extending the use of the MMS to additional groups of individuals with disabilities. Further validation of the MMS with more diverse populations and a wider distribution of disability types is important to extend the findings of the present study, and to determine the generalizability of findings beyond the university setting. Potential avenues for validation might include vocational rehabilitation agencies, the Veterans Affairs Health Care System, and other large-scale hospital settings. It is our hope that construction and validation of the MMS will serve as a stepping stone for future research in these settings to continue the important work of advocacy and improved quality of life for all individuals with disabilities.

References

- Antonak, R. F., & Livneh, H. (2000). Measurement of attitudes towards persons with disabilities. *Disability and Rehabilitation*, 22, 211-224. Retrieved from <http://www.tandf.co.uk/journals/tf/09638288.html>
- Banerjee, M., & Brinckerhoff, L. C. (2002). Assessing student performance in distance education courses: Implications for testing accommodations for students with learning disabilities. *Assessment for Effective Intervention*, 27, 25-35.
- Barnes, L. L., Mendes De Leon, C. F., Wilson, R. F., Bienias, J. L., Bennett, D. A., & Evans, D. A. (2004). Racial differences in perceived discrimination in a community population of older whites and blacks. *Journal of Aging and Health*, 16, 315-337. doi: 10.1177/0898264304264202
- Beilke, J. R., & Yssel, N. (1999). The chilly climate for students with disabilities in higher education. *College Student Journal*, 33, 364-372.
- Bishop, M. (2005). Quality of Life and Psychosocial Adaptation to Chronic Illness and Acquired Disability: A conceptual and theoretical synthesis. *Journal of Rehabilitation*, 71, 513.
- Brinckerhoff, L. C. (1997). Students with learning disabilities in graduate school or professional programs: Emerging issues on campus and challenges to employment. In P. J. Gerber & D. S. Brown (Eds.), *Learning Disabilities and Employment* (pp. 143-164). Austin, TX: PRO-ED.
- Corrigan, P., Markowitz, F. E., Watson, A., Rowan, D., & Kubiak, M. (2003). An attribution model of public discrimination toward persons with mental illness. *Journal of Health and Social Behavior*, 44, 162-179. Retrieved from <http://www.jstor.org/stable/1519806>

- Dembo, T., Leviton, G. L., & Wright, B. A. (1975). Adjustment to misfortune: A problem of social-psychological rehabilitation. *Rehabilitation Psychology*, 22, 1-100.
- DeVellis, R. F. (2012). *Scale development: Theory and applications* (3rd ed.). Thousand Oaks: CA: Sage Publications, Inc.
- Disability Statistics Center (2002). *Wheelchairs use in the United States* (Abstract 23). Retrieved from: <http://dsc.ucsf.edu/publication.php>
- Dovidio, J. F., Gaertner, S. L., Kawakami, K., & Hodson, G. (2002). Why can't we all just get along? Interpersonal biases and interracial distrust. *Cultural Diversity and Ethnic Minority Psychology*, 8, 88-102. doi: 10.1037//1099-9809.8.2.88
- Dunn, D., S., & Burcaw, S. (2013). Disability identity: Exploring narrative accounts of disability. *Rehabilitation Psychology*, 2, 148-157. doi: 10.1037/a0031691
- Essed, P. (1991). *Understanding everyday racism*. Newbury Park, CA: Sage.
- Florian, V. (1982). Cross-cultural differences in attitudes toward disabled persons: A study of Jewish and Arab youth in Israel. *International Journal of Intercultural Relations*, 6, 291-299.
- Griffin, J. A., Hanks, R. A., & Meachen, S. (2010). The reliability and validity of the community integration measure in persons with traumatic brain injury. *Rehabilitation Psychology*, 55, 292-297. doi: 10.1037/a0020503
- Gorsuch, R. L. (1983). *Factor analysis* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Guadagnoli, E., & Velicer, W. F. (1998). Relation of sample size to the stability of component patterns. *Psychological Bulletin*, 103, 265-275. doi:10.1111/j.1540-4560.2005.00424.x
- Hadley, W. M. (2011). College Students with Disabilities: A Student Development Perspective. *New Directions For Higher Education*, (154), 77-81.

- Hahn, H. (1985). Changing perception of disability and the future of rehabilitation. In L. G. Perlman & G. F. Austin (Eds.), *Social influences in rehabilitation planning: Blueprint for the 21st century* [A report of the ninth Mary E. Switzer Memorial Seminar] (pp. 53-64). Alexandria, VA: National Rehabilitation Association.
- Hahn, H. (1987). Civil rights for disabled Americans: The foundation of a political agenda. In A. Gartner, & T. Joe (Eds.), *Images of the disabled, disabling images* (pp. 181-203). New York, NY: Praeger.
- Hill, J. (1996). Speaking out: Perceptions of students with disabilities regarding adequacy of services and willingness of faculty to make accommodations. *Journal of Postsecondary Education and Disability*, 12, 22-43.
- Hill, C. E., Thompson, B. J., & Williams, E. (1997). A guide to conducting consensual qualitative research. *The Counseling Psychologist*, 25, 517-572.
doi: 10.1177/0011000097254001
- Hill, C. E., Thompson, B. J., Hess, S. A., Knox, S., Williams, E. N., & Ladany, N. (2005). Consensual qualitative research: An update. *Journal of Counseling Psychology*, 52, 196-205. doi: 10.1037/0022-0167.52.2.196
- Janiga, S. J., & Costenbader, V. (2002). The transition from high school to postsecondary education for students with learning disabilities: A survey of college service coordinators. *Journal of Learning Disabilities*, 35, 468-475.
- Keller, R. M., & Galgay, C. E. (2010). Microaggressive experiences of people with disabilities. In D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 241-267). Hoboken, NJ: John Wiley & Sons.
- Krueger, R. A., (1998). *Analyzing & reporting focus group results*. Thousand Oaks, CA: Sage.

- Linden, M. A., Crothers, I. R., O'Neill, S. B., & McCann, J. P. (2005). Reduced community integration in persons following traumatic brain injury, as measured on the community integration measure: An exploratory analysis. *Disability and Rehabilitation*, 27, 1353-1356. doi: 10.1080/09638280500164180
- Livneh, H., & Antonak, R. F. (1997). *Psychosocial adaptation to chronic illness and disability*. Gaithersburg, MA: Aspen Publishers.
- Mason, A., Pratt, H. D., Patel, D. R., Greydanus, D. E., & Yahya, K. Z. (2004). Prejudice toward people with disabilities. In: J. C. Chin (Ed.), *The psychology of prejudice and discrimination: Disability, religion, physique, and other traits* (Vol. 4, pp. 51-93). Westport, CT: Praeger Publishers.
- McColl, M. A., Davies, D., Carlson, P., Johnston, J., & Minnes, P. (2001). The community integration measure: Development and preliminary validation. *Archives of Physical Medicine and Rehabilitation*, 82, 429-434.
- McConahay, J. B. (1986). Modern racism, ambivalence, and the modern racism scale. In J. F. Dovidio & S. L. Gaertner (Eds.), *Prejudice, discrimination and racism* (pp. 91-126). Orlando, FL: Academic Press.
- Milsom, A., & Hartley, M. T. (2005). Assisting students with learning disabilities transitioning to college: What school counselors should know. *Professional School Counseling*, 8, 436-441.
- Nadal, K. L. (2011). The racial and ethnic microaggressions scale (REMS): Construction, reliability, and validity. *Journal of Counseling Psychology*, 58, 470-480.
doi: 10.1037/a0025193

- Nelson, J. K., Dunn, K. M., & Paradies, Y. (2011). Bystander anti-racism: A review of the literature. *Analyses of Social Issues and Public Policy, 11*, 263-284.
- Nunnally, J.C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- Olkin, R. (1999). *What psychotherapists should know about disability*. New York: Guilford.
- Olkin, R., & Pledger, C. (2003). Can disability studies and psychology join hands? *American Psychologist, 58*, 296-304. doi: 10.1037/0003-066X.58.4.296
- Peek, M. E., Nunez-Smith, M., Drum, M., & Lewis, T. T. (2011). Adapting the everyday discrimination scale to medical settings: Reliability and validity testing in a sample of African American patients. *Ethnicity and Disease, 21*, 502-509.
- Pierce, C., Carew, J., Pierce-Gonzalez, D., & Willis, D. (1978). An experiment in racism: TV commercials. In C. Pierce (Ed.), *Television and education* (pp. 62-88). Beverly Hills, CA: Sage.
- Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology, 52*, 137-145.
- Reistetter, T. A., Spencer, J. C., Trujillo, L., & Abreu, B., C. (2005). Examining the community integration measure (CIM): A replication study with life satisfaction. *NeuroRehabilitation, 20*, 139-148.
- Rillotta, F., & Nettlebeck, T. (2007). Effects of an awareness program on attitudes of students without an intellectual disability towards persons with an intellectual disability. *Journal of Intellectual & Developmental Disability, 32*, 19-27.
- Rubin, S. E., & Roessler, R. T. (2008). *Foundations of the vocational rehabilitation process* (6th Edition). Austin, TX: PRO-ED.

- Scott, S. S., & Gregg, N. (2000). Meeting the evolving education needs of faculty in providing access for college students with LD. *Journal of Learning Disabilities*, 33, 155-167.
- Sears, D. O. (1988). Symbolic racism. In P. A. Katz & D. A. Taylor (Eds.), *Eliminating racism: Profiles in controversy* (pp. 53-84). New York: Plenum.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston: Houghton-Mifflin.
- Smith, W. A., Allen, W. R., & Danley, L. L. (2007). "Assume the position you...you fit the description." Psychosocial experiences and racial battle fatigue among African American male college students. *American Behavioral Scientist*, 51, 551-578.
- Solorzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro Education*, 69, 60-73.
- Son Hing, L. S., Li, W., & Zanna, M. P. (2002). Inducing hypocrisy to reduce prejudicial responses among aversive racists. *Journal of Experimental Social Psychology*, 38, 71-78.
- Sue, D. W. (2010a). *Microaggressions in everyday life: Race, gender, and sexual orientation*. Hoboken, NJ: John Wiley & Sons.
- Sue, D. W. (2010b). Microaggressions, marginality, and oppression: An introduction. In: D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 3-22). Hoboken, NJ: John Wiley & Sons.
- Sue, D. W., Bucceri, J. Lin, A. I., Nadal, K. L., & Torino, G. C. (2009). Racial microaggressions and the Asian American experience. *Asian American Journal of Psychology*, 1, 88-101.
doi: 10.1037/1948-1985.S.1.88

- Sue, D. W., Capodilupo, C. M., & Holder, A. M. B. (2008). Racial microaggressions in the life experience of Black Americans. *Professional Psychology: Research and Practice*, 39, 329-336.
- Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A. M. B., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist*, 62, 271-286. doi: 10.1037/0003-066X.62.4.271
- Sue, D. W., Nadal, K. L., Capodilupo, C. M., Lin, A. I., Rivera, D. P., & Torino, G. C. (2008). Racial microaggressions against Black Americans: Implications for counseling. *Journal of Counseling & Development*, 86, 330-338. doi: 10.1037/0735-7028.39.3.329
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (6th ed.). Upper Saddle River, NJ: Pearson.
- Taylor, T. R., Kamarck, T. W., & Shiffman, S. (2004). Validation of the Detroit area study discrimination scale in a community sample of older African American adults: The Pittsburgh healthy heart project. *International Journal of Behavioral Medicine*, 11, 88-94.
- U.S. Census Bureau (2010). *Americans with disabilities: 2010* (Publication No. P70-131). Retrieved from <http://www.census.gov/prod/2012pubs/p70-131.pdf>
- U.S. Census Bureau (2011). *Current Population Survey, Annual Social and Economic Supplement*. Retrieved from https://www.census.gov/newsroom/cspan/educ/educ_attain_slides.pdf
- Vash, C. L., & Crewe, N. M. (2004). *Psychology of disability* (2nd ed.). New York, NY: Spring Publishing Company.

- Vilchinsky, N., Findler, L., & Werner, S. (2009). Attitudes toward people with disabilities: The perspective of attachment theory. *Rehabilitation Psychology, 55*, 298-306 doi: 10.1037/a0020491
- Vilchinsky, N., Werner, S., & Findler, L. (2010). Gender and attitudes toward people using wheelchairs: A multidimensional perspective. *Rehabilitation Counseling Bulletin, 53*, 163-174. doi: 10.1177/0034355209361207
- Wagner, M., L. Newman, R. Cameto, and P. Levine (2005). Changes over time in the early postschool outcomes of youth with disabilities: A report of findings from the National Longitudinal Transition Study (NLTS) and the National Longitudinal Transition Study-2 (NLTS2). Menlo Park, CA: SRI International.
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation modeling with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 56–75). Thousand Oaks, CA: Sage.
- West, M., Kregel, J., Getzel, E., Zhu, M., Ipsen, S., & Martin, E. (1993). Beyond section 504: Satisfaction and empowerment of students with disabilities in higher education. *Exceptional Children, 59*, 456-467.
- Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socioeconomic status, stress, and discrimination. *Journal of Health Psychology, 2*, 335-351.
- Wright, B. (1983). *Physical disability: A psychosocial approach* (2nd ed.). New York, NY: Harper & Row.

Yuker, H. E. (1994). Variables that influence attitudes toward persons with disabilities:
Conclusions from the data. *Journal of Social Behavior and Personality*, 9, 3-22.

Table 1

Demographic Characteristics of Participants (N=195)

	<i>n</i>	<i>%</i>
Sex		
Male	80	40.8%
Female	113	57.7%
Other	2	1.0%
Not disclosed	1	0.5%
Race/Ethnicity		
African American	13	6.6%
Hispanic/Latino	27	13.8%
Asian	12	6.1%
Caucasian	127	64.8%
Native American	7	3.6%
Other	7	3.6%
Not disclosed	3	1.5%
Sexual Identity		
Heterosexual	173	88.3%
Gay	3	1.5%
Lesbian	4	2.0%
Bisexual	9	4.6%
Transgender	2	1.0%
Not disclosed	5	2.6%

Table 1

Demographic Characteristics of Participants (N=195) (continued)

	<i>n</i>	%
Education		
Less than high school diploma or GED	2	1.0%
High school diploma or GED	6	3.1%
Some college	46	23.5%
Two year degree	21	10.7%
Four year degree	92	46.9%
Masters degree or beyond	27	13.8%
Not disclosed	2	1.0%
Age		
18 to 24	119	60.7%
25 to 34	63	32.2%
35 and up	13	6.6%
Not disclosed	1	0.5%
Marital Status		
Single	172	87.8%
Married	12	6.1%
Cohabiting	7	3.6%
Divorced	5	2.6%

Table 1

Demographic Characteristics of Participants (N=195) (continued)

	<i>n</i>	%
Socioeconomic Status		
Less than \$20k	85	43.4%
\$20k to \$40k	38	19.4%
\$40k to \$60k	28	14.3%
\$60k to \$80k	20	10.2%
\$80k to \$100k	12	6.1%
\$100k to \$150k	4	2.0%
\$150k and up	6	3.1%
Not disclosed	3	1.5%
Work Status		
Student	162	82.7%
Employed	20	10.2%
Unemployed	8	4.1%
Retired	1	0.5%
Social Security	4	2.0%
Not disclosed	1	0.5%
Identified Disability		
Amputation	17	8.6%
Arthrogryposis	4	2.0%

Table 1

Demographic Characteristics of Participants (N=195) (continued)

	<i>n</i>	%
Autoimmune Disease	1	0.5%
Brachytelephalangi Chondrodysplasia	1	0.5%
Brittle Bone Disease	3	1.5%
Cerebral Palsy	15	7.6%
Charcot-Marie-Tooth Disease	1	0.5%
Ehlers-Danlos Syndrome	1	0.5%
Muscular Dystrophy	7	3.5%
Muscular Myopathy	1	0.5%
Muscular/Skeletal Pain	4	2.0%
Myasthenia Gravis	1	0.5%
Myodystrophia	1	0.5%
Myophagism	2	1.0%
Neurological conditions	3	1.5%
Poliomyelitis	4	2.0%
Sacral Agenesis	1	0.5%
Spina Bifida	8	4.1%
Spinal Cord Injury	41	20.9%
Spinal Muscular Atrophy	22	11.2%
Other	32	16.4%

Table 1

Demographic Characteristics of Participants (N=195) (continued)

	<i>n</i>	%
Not disclosed	25	12.8%
Disability Status		
Congenital	115	58.7%
Acquired	80	40.8%
Not disclosed	1	0.5%
Age of Acquired Disability Onset		
Age 17 or younger	55	28.1%
Age 18 to 34	15	7.6%
Age 35 and older	2	1.0%
Not disclosed	8	4.1%

Note. The category of “Other” as noted under “Identified Disability” includes all disabilities that were not specified to a level that warranted a separate distinction, or did not clarify the nature of the disability itself. Examples of participant responses to Identified Disability included: 1) “Wheelchair,” 2) “Wheelchair user,” 3) “Trauma,” 4) “Physical disability,” 5) “I identify as a guy in a wheelchair,” 6) “I don’t understand the question,” and, 7) “Injured in an accident.”

Table 2

Mobility Microaggressions Scale: Rotated Factor Loadings

Scale Item	Factor and Item	h^2	Factor 1 Failed Interpersonal Interactions	Factor 2 Disability Micro invalidations	Factor 3 Systemic Barriers/ Oppression
1	Other people treat me as if I am helpless because of my disability.	.636	.743		
14	Because of my disability, people act as if they are concerned their words or actions might offend me.	.586	.733		
15	Because of my disability, people act as if they have to “walk on eggshells” around me.	.543	.686		
41	I have felt like the object of pity due to my disability.	.515	.666		
2	I have received excessive praise for doing routine tasks without needing help from others.	.559	.656		
56	People avoided walking close to me on the street because of my disability.	.418	.609		
5	People hold the door for me in an effort to help without realizing that they are actually blocking my way.	.444	.598		
35	Someone made an unintentionally offensive statement to me about my disability.	.467	.575		
11	When standing in a line, people let me move ahead of them because of my disability.	.336	.517		
13	Others make accommodations for me that I do not request.	.311	.480		
37	I have been told that I am too sensitive about my disability.	.678		.814	
36	Someone attempted to excuse their offensive words about my disability by saying, “You’re being too sensitive.”	.664		.773	
52	My opinion was ignored in a group discussion because of my disability.	.592		.704	
44	People treat me as if my life is less valuable than theirs because I have a disability.	.552		.694	
43	Someone made me feel like my life is not worth living because I have a disability.	.513		.691	
45	I have been told that it would be better to have an abortion than to knowingly bring a child with a disability into the world.	.508		.649	
51	An able-bodied individual told me I couldn’t understand their experience because I have a disability.	.472		.603	

49	I received substandard service in a place of business due to my disability.	.412		.522	
63	It is a struggle for me to obtain basic privileges (e.g., driver's license).	.494			.641
64	Even though my university provides accommodations for individuals with disabilities, it is difficult for me to access those accommodations.	.382			.541
65	Existing legislative policies make it difficult for me to obtain employment.	.342			.511
70	I was unable to use the restroom in a public place because it was not accessible to people with disabilities.	.359			.494
	Eigenvalues		8.33	2.6	1.4
	Percentage of Variance Explained		37.9	11.8	6.2

Note. Extraction method: Principal Axis Factoring. Rotation Method: Varimax. h^2 = communality estimates.

Table 3

MMS Factor Means, Standard Deviations, and Intercorrelations

MMS Factor	Factor 1	Factor 2	Factor 3	<i>M</i>	<i>SD</i>
1. Failed Interpersonal Interactions	--	.501**	.502**	30.48	8.62
2. Disability Microinvalidations	.501**	--	.486**	19.37	7.59
3. Systemic Barriers/Oppression	.502**	.486**	--	11	4.03

Note. MMS = Mobility Microaggressions Scale

** . Correlation is significant at the 0.01 level

Table 4

Instrument Descriptive Statistics and Intercorrelations

Scale	<i>M</i>	<i>SD</i>	<i>A</i>	Correlation with MMS	<i>p</i>
MMS	60.98	16.71	.92	--	.01
CIM	1.99	.715	.89	.349	.01
EDS	2.63	.887	.90	.796	.01

Note: *N* = 195. MMS = Mobility Microaggressions Scale; CIM = Community Integration Measure. EDS = Everyday Discrimination Scale.

Figure 1. Focus Group Results

Theme	Sub-Theme	Core ideas	Frequency
1. Treatment of Students with Disabilities		1) Inappropriate Helping	Variant (3)
		2) Special Treatment	Variant (3)
		3) Overly Cautious Treatment	Variant (2)
2. Discrimination	<i>Covert</i>	1) Assumption of Cognitive/Intellectual Disability	Typical (4)
		2) Others Amazed by Quality of Life	Typical (4)
		3) Failed Social Support	Variant (2)
		4) Preconceived Notions of Students with Disabilities	Variant (2)
		5) Unintentional Slights	Variant (2)
	<i>Internalized</i>	6) Internalized Ableism “Normal”	Variant (2)
	<i>Overt</i>	7) Students with Disabilities “Not worthy of living”	Variant (2)
		8) Feelings of Exclusion	Typical (4)
		9) Family/Friend Responses to Discrimination	Variant (3)
3. Systemic Barriers	<i>Policy-Based</i>	1) Perceived as a Social Burden	Variant (3)
	<i>Location-Based</i>	2) Barriers to Accessibility	Variant (2)
		3) Environmental Barriers	Variant (2)
		4) Parking Concerns	Typical (4)
4. Coping	<i>Avoidant</i>	1) Ignoring “Brush it off”	Typical (6)
	<i>Approaching</i>	2) Efforts to ease social interaction	Variant (2)
		3) Perspective taking “Something else is going on”	Typical (5)
		4) Accessing Social Support	Typical (4)
		5) “Prove them wrong”	Typical (4)
		6) Disability Advocacy	Variant (3)
		7) Personal Growth	Typical (4)

Appendix A

EXTENDED LITERATURE REVIEW

In recent history, interest has grown exponentially regarding the microaggressive experiences of marginalized and oppressed populations. Specifically within the field of counseling psychology, increased research emphasis has been placed on racial microaggressions, defined by Sue et al. (2007) as “brief and commonplace daily verbal, behavioral, or environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults toward people of color” (p. 271). Expanding this definition to include other marginalized groups, Sue (2010a) referenced several additional populations that have received less attention in the scholarly literature including: sexual minorities (LGBT), people with disabilities (PWDs), and those who face oppression due to class (i.e., those of low socioeconomic status) or religion (i.e., Islam, Judaism, etc.). As such, Sue (2010b) recommended further research to study these socially devalued groups to reveal similarities and differences with the microaggressive experiences of racial and ethnic minorities. To address this recommendation, the aim of the present study is to develop a scale to quantitatively measure the microaggressive experiences of PWDs. A brief synopsis of the research question and goals of the present literature review will now be provided.

Goals of the Present Literature Review

The study has one research question: “can a reliable and valid scale be developed to measure the microaggressive experiences of PWDs?” The goals of the present literature review are as follows: (1) to educate the reader on the construct of microaggressions, (2) to present empirical findings demonstrating the deleterious health effects (both physiological and psychological) of microaggressive discrimination, (3) to underscore the need for additional

exploration of microaggressions against a specific marginalized group (PWDs), (4) to critically review extant literature pertaining to microaggressions against, as well as attitudes toward, PWDs, and (5) to provide a cogent rationale for the development of a scale to quantitatively measure the microaggressive experience of PWDs.

Microaggressions: A Taxonomy

According to Sue et al. (2007), microaggressions can be subdivided into one of three forms: microassault, microinsult, and microinvalidation. Microassaults represent the most overt display of discrimination, in that they convey conscious and deliberate feelings of racial inferiority from perpetrator to victim (i.e., displaying a Confederate flag, burning a cross). A microinsult, while retaining some similarities to the microassault (in that both convey rudeness and insensitivity), is also a unique construct. Sue et al. (2007) described this microaggression as subtle, often occurring outside the perpetrator's conscious awareness, yet also conveying a hidden and insulting message to the victim (i.e., complimenting an African American man for speaking well, which sends the message that most Black men are incapable of doing so). Lastly, microinvalidations are recognized as communications or environmental cues that serve to exclude and negate the subjective reality of their victims (i.e., an Asian American is praised for speaking "good English"). This last form of microaggression might be the most psychologically damaging, as Sue (2010a) noted that microinvalidations "directly and insidiously deny the racial, gender, or sexual-orientation reality of these groups" (p. 37).

Sue (2010a) provided many examples of microinvalidations including: being an alien in one's own land (i.e., a person assumes that an Asian American is not born in the U.S. and asks, "what country are you from?"), color, gender, and sexual-orientation blindness (i.e., making that claim that one "does not see color" and views America as a "melting pot"), denial of individual

racism/sexism/heterosexism (i.e., stating that one cannot be homophobic because he or she “has a gay friend”), and the myth of meritocracy (i.e., the belief that all citizens have an equal chance at success in life regardless of race, gender, or sexual orientation). Each of the aforementioned examples illustrate the insidious nature of microinvalidations and how perpetration of these denigrating comments serves to deny and negate the subjective realities of the victims who experience them. It is important to note that although the preceding examples span several marginalized groups, the disability population is notably absent. Because extant research on the negative health effects of disability microaggressions is scant, the next section will highlight and review literature pertaining to marginalized populations for whom these negative effects have been well documented.

Physiological Impact of Microaggressions

With regard to empirical research, the construct of microaggression has received the greatest amount of attention within the context of racial and ethnic minorities. Authors of numerous studies have outlined the harmful effects of racial microaggressions from a physiological perspective (Krieger, 1990; Krieger & Sidney, 1996; Merritt, Bennett Jr., Williams, Edwards, & Sollers III, 2006). The current section will focus specifically on findings related to the detrimental physiological effects that victims experience as a result of microaggressive and discriminatory behavior.

Krieger (1990) examined the health effects of racial and gender discrimination related to an increased risk for high blood pressure. Participants were selected randomly and included 51 Black and 50 White women who completed a 20-minute telephone interview comprised of questions pertaining to demographics, experiences with race and gender discrimination, and self-reported hypertension status. Krieger (1990) utilized chi-square tests to compare the groups,

with results indicating that Black respondents who reported that they typically accepted and remained quiet about unfair treatment were 4.4 times more likely to report hypertension than participants who reported taking action and talking to others regarding such discrimination. Although self-report of high blood pressure was identified as a limitation of the study, Krieger (1990) provided empirical support (Colditz et al., 1986; Harlow & Linet, 1989) demonstrating high recall accuracy when comparing medical records and interview data for diagnoses of hypertension among women patients.

A study conducted by Krieger and Sidney (1996) also investigated the association between racial discrimination and blood pressure. Using a large sample ($n = 4,086$; 1,143 Black women, 831 Black men, 1,106 White women, 1,006 White men), the authors utilized a self-administered questionnaire based on the aforementioned Krieger (1990) study and also included trained and certified technicians who measured blood pressure with a random zero sphygmomanometer. The questionnaire asked participants how they responded to discrimination with the options of (1) accepting it or taking action, and (2) talking to others versus keeping it to oneself (followed by five sets of questions related to additional aspects of discrimination). Descriptive results of the questionnaire revealed that 77% of Black women and 84% of Black men had one experience of racial discrimination, with approximately 50% and 60%, respectively, reporting three or more instances. Additionally, between 70-80% of both Black and White men and women reported taking some type of action when treated unfairly and also talked to others about it.

An important limitation of the Krieger (1990) study was the absence of data pertaining to other known risk factors for hypertension (i.e., diet, weight, and exercise). To control for these factors, Krieger and Sidney (1996) utilized multivariate linear regression analyses to reveal

social class and gender as important effect modifiers. Additionally, the authors also identified the following covariates to be included in the multivariate analyses: age, education, marital or partner status, body mass index, waist-to-hip ratio, alcohol consumption, study center, use of hypertension medication, and physical fitness (Krieger & Sidney, 1996). It was concluded that the confounding factors of physical fitness and use of hypertension medication “indicated little effect on coefficients for reported discrimination and response to unfair treatment” (Krieger & Sidney, 1996, p. 1371).

Krieger and Sidney (1996) concluded that their results were very similar to those of the Krieger (1990) study (i.e., black-white differences in blood pressure and higher blood pressure among black participants who experienced racial discrimination). Of particular note were the following findings: systolic blood pressure was highest among working-class Black adults reporting that they usually accepted unfair treatment and had experienced no instances of racial discrimination (nearly 7 mm Hg higher than working-class White participants), and lower overall rates for Black participants who reported experiencing one or two instances of racism. In interpreting the results, Krieger and Sidney (1996) carefully noted it was unlikely the latter findings indicated that experiencing racism would positively impact overall cardiovascular health; rather, the authors inferred that those subjected to racism “may be at lower risk of elevated blood pressure if they are able to articulate, rather than internalize, their experiences of discrimination” (p. 1376). It was concluded that results provided support for an association between internalized racism and increased blood pressure.

Merritt et al. (2006) examined cardiovascular responses (CVR) that resulted from an active speech task featuring blatantly racist (BRC) versus nonracist (NRC) stimuli and an accompanying anger recall. The sample included 73 Black men who were randomly assigned to

one of two audiotaped conditions: a simulated shopping vignette lacking discriminatory cues (NRC), and an almost identical scenario with obvious racial discrimination (BRC). An anger recall exercise immediately followed in which participants were asked to rate perceived racism on a 4-point Likert scale. Additionally, cardiovascular measures were taken at various points throughout the study. Repeated measures ANOVA were conducted to analyze data, with the unexpected finding that reading the nonracist scenario resulted in higher levels of diastolic blood pressure after reading the presentation (at a statistically significant level). Merritt et al. (2006) stated that “these findings suggest that heightened CVR may be encountered by those who are likely to generate racist attributions to explain otherwise ambiguous provocative interpersonal situations” (p. 367). Because blood pressure rates were higher for participants in the ambiguous NRC scenario, Merritt et al. (2006) also provided further evidence of subtle racism (i.e., microaggressions) as a legitimate psychosocial stressor with severe implications for cardiovascular health.

Psychological Impact of Microaggressions

To examine the psychological effects of microaggressions, Broman, Mavaddat, and Hsu (2000) conducted a study to examine perceived racial discrimination within the framework of the learned helplessness hypothesis (Abramson, Garber, & Seligman, 1980), which posits that individuals who come to believe that outcomes are uncontrollable suffer deficits in three areas: motivational (i.e., action is not taken because it is expected that such action will be futile), cognitive (i.e., one becomes less likely to believe that a given action will lead to a related outcome), and emotional (i.e., depression which results from the realization that specific actions have no bearing on given causes). The authors predicted that participants subjected to racial

discrimination would experience higher levels of depression and a lowered sense of mastery when compared with Blacks who had not perceived such discrimination.

Broman et al. (2000) studied 495 African American adults by asking a series of questions related to discrimination (i.e., in hiring, while working, shopping, interactions with police) that had been experienced within the previous three years. Measures included two Likert scales asking respondents to rate their levels of mastery (i.e., control over one's life and future, ability to solve problems) and distress (i.e., feeling depressed, restless, poor appetite), respectively. Broman et al. (2000) found that 60% of participants had experienced discrimination within the previous three years, with age identified as a critical variable (77% of young respondents (age 18-29) and 24% of old respondents (age 60 and older) affirmed experiencing discrimination in the previous three years). Importantly, support was found for both hypotheses, as Broman et al. (2000) indicated that Black participants who perceived racial discrimination had lower levels of mastery and heightened psychological distress when compared with Blacks who had not perceived such discrimination. Perhaps the strongest support was captured by the Broman et al. (2000) as follows:

Whites often argue that Blacks are simply too sensitive or that the argued instance of discrimination is 'all in their head.' The data we used here cannot adjudicate this issue. At some fundamental level, no data can. This is an issue of achieving concordance in the views of different actors who are motivated to see the issue in different ways. We would suggest that the power of the findings presented here is that, whether the instances of discrimination in these data are real or perceived, they are clearly real in their consequences. (p. 178)

Indeed, as research presented in this section will repeatedly demonstrate, the consequences of any form of discrimination, be it racial or otherwise, are clear and underscore the importance of extending research to explore the experiences of other marginalized groups.

To investigate the prevalence of psychiatric symptoms among racial minorities, Klonoff, Landrine, and Ullman (1999) conducted a study comprised of 520 African American adults. Participants completed measures related to racial discrimination (Schedule of Racists Events, SRE) and psychological distress (Psychiatric Epidemiology Research Interview Life Events Scale, PERI-LES; Symptom Checklist-58). The authors first conducted six stepwise multiple regressions to determine which variables best accounted for participant symptoms (somatization, obsessive-compulsive, interpersonal sensitivity, depressive, anxiety). Results indicated that racist events were significant contributors to all regressions, accounting for 15% of the variance in total symptoms. A second set of multiple regression analyses then revealed that experiences of racism uniquely contributed to all symptoms even when the contributions of status and generic life stressors were taken into account. Finally, the authors used structural equation modeling to reveal racial discrimination as a latent construct comprised of three components: recent racist events, lifetime racist events, and appraised racist events. A critical finding in the study was the lack of significance of social class with regard to racial discrimination (i.e., higher income and education did not buffer its effects). Klonoff et al. (1999) concluded that these results indicated the racism “may be a powerful but hidden variable in Black mental health” as well as in racial differences with regard to mental health-related behaviors such as coping and help-seeking (p. 337).

Similarly, Hwang and Goto (2008) investigated the impact of perceived racial discrimination on the mental health of 176 Asian American and Latino college students.

Experiences of racism were measured by the General Ethnic Discrimination Scale (GED), with a number of mental health variables measured as follows: psychological distress (Brief Symptom Inventory, BSI), suicide (Scale for Suicidal Ideation, SSI), anxiety (State-Trait Anxiety Inventory, STAI), and depression (Hamilton Depression Inventory, HDI). Through the use of MANOVA and hierarchical regression analyses, Hwang and Goto (2008) revealed that Asian American and Latino college students encountered comparable levels of exposure and reactions to myriad forms of discrimination with some exceptions (i.e., Latinos more likely to be accused of cheating or breaking the law and experience stress as a result; Asian Americans demonstrated increased risk for trait anxiety). A limitation in generalizing the findings was noted as heterogeneity due to the many subgroups of both Asian and Latino Americans. However, similar to the aforementioned studies outlining the psychological impact of discrimination, Hwang and Goto (2008) argued for the relevance of their findings, stating that “for most types of discrimination, mean exposure levels were somewhere between *once in a while* to *sometimes*, indicating that discriminatory experiences are a reality for Asian and Latino American college students” (p. 23).

Smith, Allen, and Danley (2007) employed a qualitative methodology (grounded theory) to examine the microaggressive experiences of 36 African American college students at historically White institutions (HWIs). To understand and explicate these experiences, Smith et al. (2007) introduced the paradigm of racial battle fatigue:

A theoretical framework for examining social-psychological stress responses (e.g., frustration; anger; exhaustion; physical avoidance; psychological or emotional withdrawal; escapism; acceptance of racist attributions; resistance; verbally, nonverbally,

or physically fighting back; and coping strategies) associated with being an African American male on historically White campuses. (p. 552)

To explore this framework and confirm its validity, Smith et al. (2007) conducted analyses of focus groups and semistructured interviews to uncover two primary themes: (1) anti-Black male stereotyping and marginality, along with (2) hypersurveillance and control.

Smith et al. (2007) delineated hypersurveillance and control as a process of being subjected to a constant level of monitoring from local law enforcement officials both on and off campus. As a result of such discriminatory treatment, participants in the study reported a range of adverse psychological consequences including anxiety, hopelessness, shock, frustration, avoidance, alienation, invisibility, and resentment. In interpreting participants' responses, Smith et al. (2007) stated that "African American males were defined as being 'out of place' and 'fitting the description' of illegitimate members of the campus community" (p. 562).

Within the aforementioned themes, Smith et al. (2007) identified three domains in which participants experienced microaggressions: campus-academic (i.e., classrooms, administrative buildings), campus-social (i.e., fraternity houses), and campus-public spaces (i.e., off-campus restaurants, coffee lounges, convenience stores). Focus-group interviews allowed participants to reflect on myriad examples of discriminatory treatment which revealed immense, self-reported psychological consequences as previously mentioned (i.e., shock, frustration, anxiety). Importantly, results indicated a common denominator shared across participant responses: the presence of law enforcement personnel. Indeed, Smith et al. (2007) noted that "the criminalization of African American males was among the most often reported and offensive concern shared by Black male students" (p. 563).

Moving Beyond Racial and Ethnic Microaggressions

Because empirical support for the negative health consequences (both physiological and psychological) is clear, it stands to reason that additional studies are needed to determine if these consequences extend to other marginalized populations. As such, Sue (2010b) recommended further research to study other socially devalued groups (i.e., women, LGBT, PWDs, those of low socioeconomic status, and religious minorities) to uncover similarities and differences with regard to microaggressions experienced by racial and ethnic minorities. The remainder of this review will focus on extant literature regarding microaggressions against, as well as attitudes toward, PWDs. In so doing, the central goal is to provide a clear argument and sound rationale for the development of a scale to quantitatively measure the construct of microaggressions against PWDs.

People with Disabilities: A History of Marginalization

A population representing an area of untapped research potential with regard to microaggressions is that of PWDs. To date, the only known study to explore this phenomenon was conducted by Keller and Galgay (2010), who sought to uncover and better understand the microaggressive experiences of PWDs through the use of a qualitative methodology (consensual qualitative research, CQR). The rationale behind the choice of this method, which centered on the use of focus group interviews, was supported by past research indicating that qualitative designs are particularly effective in exploring the lived experiences of marginalized populations often overlooked by quantitative approaches. In providing evidence of microaggressive discrimination of PWDs, Keller and Galgay (2010) made reference to the concept of ableism, which they defined as “the unique form of discrimination experienced by PWDs based on their disabilities. Its expression favors people without disabilities and maintains that disability in and

of itself is a negative concept, state, and experience” (p. 242). An overview of the disability movement will now be provided, followed by an examination of literature related to attitudes toward PWDs, and finally an in-depth review of the study by Keller and Galgay (2010).

Historical Context of Disability. A look at the history of the disability movement reveals no dearth of suffering, oppression, and marginalization. In colonial America when survival of the fittest reigned supreme, immigration policy contained specific language forbidding entry to those with physical, mental, or emotional disabilities (U.S. Commission on Civil Rights, 1983). As the 19th-century progressed and the Jeffersonian-Jacksonian concept of limited government took hold, little to no financial support could be found from the federal level for PWDs (Rubin & Roessler, 2008). In addition to a paucity of resources available for treatment or humane care, it was during the first one-half of the 19th century that day-to-day living conditions in mental hospitals were exposed by Dorothea Dix and described as making “some of the worst present-day jails and prisons look like country clubs in comparison” (Rubin & Roessler, 2008, p. 13). The work of Dix served as a pivotal point in the history of the disability movement, revealing social justice and civil rights advocacy as the primary catalysts for change over the next 150 years to the present day.

Although her tireless efforts resulted in marked amelioration in the treatment of PWDs, the late 19th century brought with it English philosopher Herbert Spencer’s Social Darwinism movement, whose theory viewed American society as moving toward higher ethical ground through the process of natural selection. Spencer’s philosophy placed primary emphasis on limited government intervention, viewing it as “interfering with the purification process whereby the unfit were eliminated” (Rubin & Roessler, 2008, p. 17). The influence of Spencer’s work on social and economic policy in late 19th-century America has been noted (Rubin & Roessler,

2008), and although this movement was short-lived, it serves as a stark reminder in the present day of the rampant discrimination and inhumane philosophies that influenced American policy in the early 1900s.

The 20th century was noted for key advancements, particularly legislative action that resulted in improved conditions for PWDs. The Smith-Hughes Act of 1917 served as the birth of funding for vocational education programs (Rubin & Roessler, 2008). The period between 1954 and 1965 has been referred to as the Golden Era of Rehabilitation due to the combined efforts of Presidents Eisenhower, Kennedy, and Johnson in expanding rehabilitation services (Rusalem, 1976). The grassroots independent living movement arose in the late 1960s to help empower PWDs to take control over their lives, while the landmark Americans with Disabilities Act of 1990 served as a beacon of legislative action for the disability rights movement (Rubin & Roessler, 2008).

Yet as the parallels between the disability and Civil Rights movements are evident (i.e., increased visibility of injustice, legislation mandating equality), it is here that the need for exploration of microaggressions against PWDs becomes clear. Dovidio, Gaertner, Kawakami, and Hodson (2002) described the shift from overt to covert discrimination as follows: “in contrast to ‘old-fashioned’ racism, which is blatant, aversive racism represents a subtle, often unintentional form of bias that characterizes many White Americans who possess strong egalitarian values and who believe they are nonprejudiced” (p. 90). Although champions of the disability movement have engendered meaningful and far-reaching social change through ongoing advocacy efforts, discrimination of PWDs, much like discrimination of people of color, is still occurring; the method of delivery has simply changed “to a more ambiguous and nebulous form that is more difficult to identify and acknowledge “ (Sue et al., 2007, p. 272).

Attitudes Toward People with Disabilities

Those working in the area of social psychological research have helped provide a framework in which to understand the prevailing attitudes of able-bodied individuals toward PWDs. Asch (1946) explored the concept of impression formation, the ways in which impressions are formed of others, through an experiment that asked participants to rate their impressions of a stranger by reviewing a list of that individual's personality traits (i.e., intelligent, skillful, practical). In providing the list of traits a simple manipulation was made, in that one list described the stranger as "warm," while the other was changed to describe the individual as "cold." By altering this single trait (while leaving all other traits constant), participants were much more likely to form a favorable impression of the stranger described as "warm." Importantly, Asch (1946) concluded that descriptors such as personal warmth and coldness were central traits that strongly influenced overall perceptions of the stranger in the study. In translating these findings to the present study, Olkin (1999) described disability as a central characteristic, adding that, "when other attributes are unknown (e.g., when first meeting) its role is profound in impression formation" (p. 55).

Building on the idea of impression formation and the role of disability as a central characteristic are the concepts of spread and attractiveness. First studied by Dembo, Leviton, and Wright (1975), the spread effect relates to the ability of one salient characteristic to evoke assumptions and inferences about an individual. With regard to PWDs, Olkin (1999) described how the spread effect influences able-bodied individuals to perceive disabilities as more severe than they are in reality (i.e., assuming a wheelchair-bound individual is also cognitively impaired). Regarding the concept of attractiveness, a seminal study in the field of social science by Dion, Berschied, and Walster (1972) found that participants were more likely to rate

physically attractive individuals as more competent and more likely to succeed in life than individuals of lesser attractiveness. Olkin (1999) stated that the attractiveness bias traps PWDs in several ways: (1) they are unfairly judged for their disability, (2) one's level of attractiveness may alter perceptions of the disability (for better or worse), and (3) a physical impairment may provide misleading cues (i.e., a muscle twitch interpreted as a gesture of dismissal). Both spread and attractiveness will factor prominently in the Keller and Galgay (2010) study discussed later in this review.

In a comprehensive review of literature related to attitudes toward disabilities, Yuker (1994) posited the following:

The beliefs that a nondisabled person has about people with disabilities is probably the major variable that influences attitudes. This information is a product of many influences including prior contact with disabled people, the attitudes of significant others, the effects of education, and the mass media. (p. 5.)

Yuker (1994) placed particular importance on the role of information and contact with PWDs in reducing negative biases and stereotypes. Supporting this contention, Patterson and Witten (1987) found in earlier work that those with minimal contact with PWDs admitted to possessing little knowledge about them, in addition to believing many myths (i.e., people with visual impairments can hear and feel things no one else can, people with disabilities do not recognize their limitations or abilities) associated with this population. The need for further research regarding mistaken beliefs and interventions to address them will be discussed later in this review.

The Minority Model: Toward a Solution. Numerous authors (Hahn, 1987; Mason, Pratt, Patel, Greydanus, & Yahya, 2004; Olkin, 1999; Rubin & Roessler, 2008) have alluded to the

importance of the minority model (also known as the “social model” and “minority group model”) in understanding disability. The central tenet of the minority model is the idea that disability is a social construction (Olkin, 1999). The model further posits that the major obstacle confronting PWDs is not the disability itself, but rather the disabling environment, which constrains PWDs through the physical and attitudinal barriers imposed by people without disabilities (Hahn, 1987). In essence, the goal should not be to fix the person with a disability, but rather to repair the broken systems that perpetuate unjust treatment. Indeed, as Olkin (1999) stated, “this is the crux of the minority model, this shift in focus from personal, individual, and problem in isolation, to group, environment, attitudes, discrimination – from individual pathology to social oppression” (p. 28).

Examining the Microaggressive Experiences of People with Disabilities

As previously mentioned, the only known study to date to specifically explore the phenomenon of microaggressions against PWDs was conducted by Keller and Galgay (2010). The authors hypothesized that while PWDs experience comparable forms of discrimination as other oppressed and marginalized populations, “they may be subjected to unique group-specific manifestations as well” (Keller & Galgay, 2010, p. 242). To validate this contention, the authors employed the methodological approach of CQR with a sample of 12 participants (8 White, 2 Latino, 2 Black; ten over the age of 40, two in their 20s; 5 visible and 7 invisible disabilities) who were administered a semi-structured interview protocol delivered via focus groups that met for approximately 1.5 hours each.

Keller and Galgay (2010) outlined the research goals of their study as follows: to learn how subtle disability insults and invalidations occurred in interpersonal and environmental encounters, to understand the impact of disability microaggressions and the complex interplay

between perpetrators and targets, to understand why these discriminatory behaviors occurred and the forms they took, to determine the likelihood that such exchanges resulted in emotional and psychological consequences for victims (and perpetrators), and finally to identify steps that could be taken to eradicate disability microaggressions completely. The results revealed an initial taxonomy of eight microaggression domains that included denial of identity (denial of personal identity, and denial of experience), denial of privacy, helplessness, secondary gain, spread effect, patronization, second-class citizenship, and desexualization). The responses of participants, which will now be discussed, provided clear evidence that the psychological damage inflicted on victims is immense and in need of further empirical study.

Denial of Identity. Endorsed by both focus groups, Keller and Galgay (2010) found the first domain of microaggressions against PWDs to contain two variations: denial of personal identity and denial of experience. In the former, an example was identified as an able-bodied perpetrator proclaiming surprise upon learning that a PWD was married. The subtle, demeaning message sent by this individual was stated by Keller and Galgay (2010) as follows: “There is no part of your life that is normal or like mine. The only thing I see when I look at you is your disability” (p. 249). With the latter, participants subjected to the microaggression of denial of experience described several sublevels.

First, minimization of a discriminatory experience was outlined by a participant who recalled a friend criticizing her for being overly sensitive upon learning that a restaurant was handicapped-inaccessible. A second example was shared as a perpetrator who demonstrated understanding of, or identification with, a person’s disability experience, which served to invalidate the experience of the PWD altogether. Finally, flat denial of disability also occurs for both people with visible and invisible disabilities. As Keller and Galgay (2010) noted with each

of these examples, “the underlying message received by the target is that their experience is not important, not real, or not worth acknowledging” (p. 251).

Denial of Privacy. Participants described the microaggression of denial of privacy as one that often occurred abruptly, with perpetrators perceived as intrusive and devoid of respect and courtesy for the feelings of their victims. Denial of privacy occurs in the context of both visible and invisible disabilities and can involve a demand for information (in the case of people with visible disabilities when asked in public how they became disabled) or a request to identify oneself as having a disability (i.e., a person with a speech impediment that is not readily apparent without a verbal exchange). As Keller and Galgay (2010) stated, the subtle message is that PWDs lack the right to privacy regarding their disability status.

Helplessness. The third domain, widely acknowledged by participants in the study, was noted by Keller and Galgay (2010) to be multilayered in its interpretation. The misconception that PWDs are in constant need of help was identified by multiple participants. Also acknowledged was the idea that when individuals come into contact with PWDs, they become more aware of their own mortality and in the process “project a catastrophic representation of disability due to their lack of knowledge and understanding about living with a disability” (Keller & Galgay, 2010, p. 253). The authors extrapolated that the underlying message to PWDs is that life with a disability “is a tortuous experience hardly worth living” (Keller & Galgay, 2010, p. 253).

Secondary Gain. Identified by participants in both groups, the microaggression of secondary gain was also found to have multiple interpretations. First, some participants described being relegated to “token” status (i.e., school officials praising their own efforts to provide exemplary accommodations to a visually impaired student). Additionally, others

identified lived experiences where perpetrators seemed to engage with them as a way to boost self-esteem simply by virtue of interacting with a PWD. The implied message received by victims of the secondary gain microaggression is one of exploitation (Keller & Galgay, 2010).

Spread Effect. The concept of spread effect relates to the assumption that a deficit in one functional area results in deficits in other, unrelated areas (Keller & Galgay, 2010). An example shared in one focus group entailed an experience where perpetrators (school teachers) assumed that a participant was cognitively impaired based solely on the presence of a visual disability. The consistent theme, as with each of the microaggressions delineated here, is the inherent message of invalidation, as well as inferiority of PWDs to able-bodied individuals. In other words, as Keller and Galgay (2010) noted, the insinuation is that one's disability invalidates a person in all areas of his or her life.

Patronization. Patronization most commonly occurs when perpetrators talk down to victims in a childlike fashion (Keller & Galgay, 2010). As with the spread effect phenomenon, those who experience the microaggression of patronization are made to feel invalid, incapable, and humiliated. A secondary component of patronization is that of false admiration, which participants described as the process of receiving undue praise and regard based solely on the presence of disability. As Keller and Galgay (2010) noted, the subtle meaning implied by this form of patronization is that PWDs should be praised or revered for enduring the miserable experience of life with a disability.

Second Class Citizenship. Keller and Galgay (2010) described three forms of this microaggression as avoidance, burden, and environmental. In the first, PWDs experience complete disregard for their existence, most notably in public settings such as restaurants (i.e., a waiter deferring to the person accompanying a PWD for his or her food order) or passing

individuals on the street (i.e., avoiding eye-contact). Burden is demonstrated in microaggressive experiences at places of employment, where PWDs in this study felt as if they were perceived to be a drain on resources. Finally, participants cited environmental barriers (i.e., public places without reasonable accommodations for PWDs) as proof that despite high profile legislative action, injustice still pervades modern society.

Desexualization. The essential feature of this microaggression was described by Keller and Galgay (2010) as the act of denying PWDs as sexual beings. Participants from each focus group shared about the role of appearance and attractiveness (as it is traditionally defined) and how these factors influenced perceptions of PWDs as individuals incapable of intimate relationships, or even feelings of sexual desire. Focus group interviewees shared that an underlying reason for the microaggression of desexualization could be related to a fear of becoming a parent of a child with a disability.

Discussion. Based on the seminal work of previous researchers (Sue 2010a; Sue 2010b; Sue et al., 2007), direct commonalities were found with regard to the racial microaggressions of second-class citizenship and denial of identity. In addition, partial overlap was noted between the experiences of PWDs and those of racial and ethnic minorities with regard to spread effect and desexualization. Microaggressive experiences unique to PWDs were noted as denial of privacy, helplessness, secondary gain, and patronization, prompting Keller and Galgay (2010) to strongly urge future research to extend and confirm these findings.

Perhaps the most compelling reason for further empirical study of microaggressions against PWDs lies in the consistent themes of confusion and complexity inherent in the exchanges between able-bodied perpetrators and those who are victimized. Keller and Galgay (2010) noted myriad examples of participants who reflected on their experiences with anger and

frustration by questioning how they could best confront and educate microaggressors regarding their discriminatory behavior (especially when such individuals acted with good intentions). This exhausting double-bind was eloquently captured by Keller and Galgay's (2010) discussion on the microaggression of helplessness:

If a PWD responds to an unneeded and unsolicited offer of help harshly or by ignoring it, these responses can feed into existing negative stereotypes, such as the unappreciative, angry disabled person. In addition, a PWD who responds abruptly or forcefully realizes that this encounter might contribute to the perpetrator shying away from future encounters with other PWDs. On the other hand, if the PWD chooses or is forced to accept the help, they may feel demoralized, powerless, and submissive. (p. 262)

In providing this example and countless others, Keller and Galgay (2010) highlighted the complexity of microaggressive experiences and the challenge inherent in effectively addressing them. Undoubtedly, future research must focus on the delicate nature of responses to microaggressions and how to effectively communicate to perpetrators that they have occurred (Keller & Galgay, 2010).

Study Limitations. While findings were clearly robust, with myriad examples of the lived microaggressive experiences of PWDs, Keller and Galgay (2010) noted a number of key limitations. Keller and Galgay (2010) provided strong evidence of the deleterious psychological impact of microaggressions, which included “frustration, anger, rage, embarrassment, insult, and invalidation from the continuous stream of microaggressions that they experienced from family, friends, acquaintances, and strangers” (p. 258). However, the authors also identified multiple limitations. Three threats to the external validity of the results were noted, all of which fall under the category of “interaction of the causal relationship with units” (Shadish, Cook, &

Campbell, 2002). This limitation relates specifically to the notion that an effect found with a specific group of participants may not hold with a different group of participants. First, the age range of participants was restricted (ten participants in their forties or fifties, two participants in their twenties). Therefore, generalizability to other age groups is called into question. Second, though unemployment has been identified as a significant problem for PWDs (Olkin, 1999; Vash & Crewe, 2004; Wright 1983), only one of the 12 participants identified as being unemployed. This is noteworthy because those with injuries requiring the permanent use of a wheelchair (i.e., spinal cord injury) often struggle to maintain employment (Meade, Armstrong, Barrett, Ellenbogen, & Jackson, 2006; Chan & Man, 2005). Third, Keller and Galgay noted that a majority of the participants identified themselves as advocates and supporters of the disability rights movement, a characteristic which may not generalize to the overall population of PWDs.

From Qualitative to Quantitative: Measuring Microaggressive Experiences

Nadal (2011) noted that while extant research has contributed positively to our understanding of microaggressions, most studies in this area have relied heavily on qualitative methodologies. Hence, a need for quantitative exploration has arisen. As a result, several scales have been recently constructed to measure these experiences: the Racial and Ethnic Microaggressions Scale (REMS) created by Nadal (2011); the Racial Microaggressions Scale (RMAS) developed by Torres-Harding, Andrade Jr., & Romero Diaz (2011); and the LGBT People of Color Microaggressions Scale (LGBT-POC) created by Balsam, Molina, Beadnell, Simoni, & Walters (2011). The developers of these three microaggressions scales were unanimous in their conclusions; the REMS, RMAS, and LGBT-POC were each found to be valid and reliable measures in quantifying the microaggressive experiences of the marginalized

populations being studied. However, as is evident from the content of these scales, none specifically measures the microaggressive experiences of PWDs.

Present Study

Rationale. Olkin & Pledger (2003) stated that while the field of psychology has taken great strides to embrace diversity (i.e., race, gender, sexual orientation), it has simultaneously failed to acknowledge disability as a marginalized status equally worthy of inclusion. Being that Keller and Galgay (2010) conducted the first known study of its kind some seven years later, there can be no argument against the contention that further efforts are needed in our field to address the needs of the disability community and to work toward greater inclusion of this population in the diversity movement. As previously stated, Keller and Galgay (2010) reported results that revealed strong evidence of the psychological damage inflicted on victims of disability microaggressions, which included “frustration, anger, rage, embarrassment, insult, and invalidation from the continuous stream of microaggressions that they experienced from family, friends, acquaintances, and strangers” (p. 258). Due to the aforementioned limitations (i.e., sample size, lack of representation of many disability diagnoses, lack of representation of PWDs not affiliated with the disability movement), the author of the present study sought to strengthen and extend the findings of Keller and Galgay (2010) by developing a scale to quantitatively measure the microaggressive experiences of PWDs, focusing specifically on a subpopulation of college students with disabilities who require the permanent use of a wheelchair.

Scale Development. The development of the Mobility Microaggressions Scale (MMS) involved a multi-step process. Study One involved a focus group interview with seven students with disabilities at a Midwestern university to further elucidate participant perceptions of day-to-day experiences in the context of social interactions. Additionally, the interview was utilized to

reveal salient themes of disability microaggressions upon which to base the item generation process for the MMS. Consensual qualitative research (CQR) was utilized, revealing four domains (Treatment of Students with Disabilities, Discrimination, Systemic Barriers, and Coping). Study Two involved the creation of an initial pool of items, expert review, and determination of the final 70-item pool, followed by an exploratory factor analysis, which provided empirical support for a final 22-item, 3-factor (Disability Microinvalidations, Failed Interpersonal Interactions, Systemic Barriers/Oppression) model.

Implications for Research, Theory, and Practice. The development of a valid, psychometrically sound scale to measure the microaggressive experiences of PWDs may add substantively to the extant literature base by quantifying the subjective realities of this marginalized population. First, the MMS serves as a potential starting point for research on effective psychotherapy treatment approaches. Indeed, Keller and Galgay (2010) implored researchers to develop interventions that facilitate the process of coping with the deleterious psychological and emotional consequences of microaggressive experiences. With regard to conceptualization and theory, support for the unique nature of disability microaggressions may also serve as a catalyst for the development of “a unified model of disability identity as well as ableism as its theoretical counterpart” (Keller & Galgay, 2010, p. 264).

Perhaps most importantly, however, is the assertion that future research should target perpetrators of microaggressions. As literature pertaining to the minority model has shown (Hahn, 1987; Mason et al., 2004; Olkin, 1999; Rubin & Roessler, 2008), disability itself is not the problem; rather, it is the constraints placed on PWDs by environmental and attitudinal barriers that are in dire need of elimination. If support for a valid and reliable scale is found, further evidence will exist that demonstrates the critical importance of developing interventions

that address perpetrators (i.e., psychoeducation), educate the public on the pervasive nature of microaggressions (i.e., large-scale awareness raising initiatives), and ultimately reduce their overall prevalence. As the results from Keller and Galgay (2010) indicated, interpretation of microaggressions is a complex process, as perpetrators often act with the best of intentions. Further research is needed to elucidate effective means and methods for educating perpetrators regarding microaggressive behavior.

References

- Abramson, L. Y., Garber, J., & Seligman, M. E. P. (1980). Learned helplessness in humans: An attributional analysis. In J. Garber & M. E. P. Seligman (Eds.), *Human helplessness* (pp. 3-34). New York: Academic Press.
- Asch, S. (1946). Forming impressions of personality. *Journal of Abnormal and Social Psychology*, 41, 258-290.
- Balsam, K. F., Molina, Y., Beadnell, B., Simoni, J., & Walters, K. (2011). Measuring multiple minority stress: The LGBT people of color microaggressions scale. *Cultural Diversity and Ethnic Minority Psychology*, 17, 163-174. DOI: 10.1037/a0023244
- Brinckerhoff, L. C. (1997). Students with learning disabilities in graduate school or professional programs: Emerging issues on campus and challenges to employment. In P. J. Gerber & D. S. Brown (Eds.), *Learning Disabilities and Employment* (pp. 143-164). Austin, TX: PRO-ED.
- Broman, C. L., Mavaddat, R., & Shu-yao, H. The experience and consequences of perceived racial discrimination: A study of African Americans. *Journal of Black Psychology*, 26, 165-180.
- Chan, S. K. K., & Man, D. W. K. (2005). Barriers to returning to work for people with spinal cord injuries: A focus group study. *Work*, 25, 325-332
- Colditz, G. A., Martin, P., Stampfer, M. J., Willet, W. C., Sampson, L., Rosner, B., ... Speizer, F. E. (1986). Validation of questionnaire information on risk factors and disease outcomes in a prospective cohort study of women. *American Journal of Epidemiology*, 123, 894-900.

- Dembo, T., Leviton, G. L., & Wright, B. A. (1975). Adjustment to misfortune: A problem of social-psychological rehabilitation. *Rehabilitation Psychology*, 22, 1-100.
- Dion, K., Berscheid, E., & Walter, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, 24, 285-290.
- Dovidio, J. F., Gaertner, S. L., Kawakami, K., & Hodson, G. (2002). Why can't we all just get along? Interpersonal biases and interracial distrust. *Cultural Diversity and Ethnic Minority Psychology*, 8, 88-102.
- Hahn, H. (1987). Civil rights for disabled Americans: The foundation of a political agenda. In A. Gartner & T. Joe (Eds.), *Images of the disabled, disabling images* (pp. 181-203). New York, NY: Praeger.
- Harlow, S. D., & Linet, M. S. (1989). Agreement between questionnaire data and medical records: The evidence for accuracy of recall. *American Journal of Epidemiology*, 129, 233-248.
- Hwang, W., & Goto, S. (2008). The impact of perceived racial discrimination on the mental health of Asian American and Latino college students. *Cultural Diversity and Ethnic Minority Psychology*, 74, 326-335.
- Keller, R. M., & Galgay, C. E. (2010). Microaggressive experiences of people with disabilities. In: D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 241-267). Hoboken, NJ: John Wiley & Sons.
- Klonoff, E. A., Landrine, H., & Ullman, J. B. (1999). Racial discrimination and psychiatric symptoms among Blacks. *Cultural Diversity and Ethnic Minority Psychology*, 5, 329-339.

- Krieger, N. (1990). Racial and gender discrimination: Risk factors for high blood pressure? *Social Science & Medicine*, 30, 1273-1281.
- Krieger, N., & Sidney, S. (1996). Racial discrimination and blood pressure: The CARDIA study of young Black and White adults. *American Journal of Public Health*, 86, 1370-1378.
- Linden, M. A., Crothers, I. R., O'Neill, S. B., & McCann, J. P. (2005). Reduced community integration in persons following traumatic brain injury, as measured on the community integration measure: An exploratory analysis. *Disability and Rehabilitation*, 27, 1353-1356. doi: 10.1080/09638280500164180
- Mason, A., Pratt, H. D., Patel, D. R., Greydanus, D. E., & Yahya, K. Z. (2004). Prejudice toward people with disabilities. In: J. C. Chin (Ed.), *The psychology of prejudice and discrimination: Disability, religion, physique, and other traits* (Vol. 4, pp. 51-93). Westport, CT: Praeger Publishers.
- Meade, M. A., Armstrong, A. J., Barrett, K., Ellenbogen, P. S., & Jackson, M. N. (2006). Vocational rehabilitation services for individuals with spinal cord injury. *Journal of Vocational Rehabilitation*, 25, 3-11.
- Merritt, M. M., Bennett, G. G., Jr., Williams, R. B., Edwards, R. B., & Sollers J. J., III (2006). Perceived racism and cardiovascular reactivity and recovery to personally relevant stress. *Health Psychology*, 25, 364-369.
- Nadal, K. L. (2011). The racial and ethnic microaggressions scale (REMS): Construction, reliability, and validity. *Journal of Counseling Psychology*, 58, 470-480).
- Olkin, R. (1999). *What psychotherapists should know about disability*. New York: Guilford.
- Olkin, R., & Pledger, C. (2003). Can disability studies and psychology join hands? *American Psychologist*, 58, 296-304.

- Patterson, J. B., & Witten, B. (1987). Myths concerning people with disabilities. *Journal of Applied Rehabilitation Counseling*, 3, 42-44.
- Rubin, S. E. & Roessler, R. T. (2008). *Foundations of the vocational rehabilitation process* (6th Edition). Austin, TX: PRO-ED.
- Rusalem, H. (1976). A personalized recent history of vocational rehabilitation in America. In H. Rusalem & D. Malikin (Eds.), *Contemporary vocational rehabilitation*. New York: New York University Press.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston: Houghton Mifflin.
- Smith, W. A., Allen, W. R., & Danley, L. L. (2007). "Assume the position you...you fit the description." Psychosocial experiences and racial battle fatigue among African American male college students. *American Behavioral Scientist*, 51, 551-578.
- Solorzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro Education*, 69, 60-73.
- Sue, D. W. (2010a). *Microaggressions in everyday life: Race, gender, and sexual orientation*. Hoboken, NJ: John Wiley & Sons.
- Sue, D. W. (2010b). Microaggressions, marginality, and oppression: An introduction. In: D. W. Sue (Ed.), *Microaggressions and marginality: Manifestation, dynamics, and impact* (pp. 3-22). Hoboken, NJ: John Wiley & Sons.
- Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A. M. B., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist*, 62, 271-286.

- Torres-Harding, S. R., Andrade Jr., A. L., & Romero Diaz, C. E. (2012). The racial microaggressions scale (RMAS): A new scale to measure experiences of racial microaggressions in people of color. *Cultural Diversity and Ethnic Minority Psychology*, 18, 153-164. DOI: 10.1037/a0027658
- U.S. Commission on Civil Rights. (1983). *Accommodating the spectrum of individual abilities*. Washington, DC: Author.
- Vash, C. L., & Crewe, N. M. (2004). *Psychology of disability* (2nd ed.). New York, NY: Spring Publishing Company.
- Wright, B. (1983). *Physical disability: A psychosocial approach* (2nd ed.). New York, NY: Harper & Row.
- Yuker, H. E. (1994). Variables that influence attitudes toward persons with disabilities: Conclusions from the data. *Journal of Social Behavior and Personality*, 9, 3-22.

Appendix B

THE EVERYDAY DISCRIMINATION SCALE

Instructions: In your day-to-day life, how often do any of the following things happen to you?

	Never	Less than once a year	A few times a year	A few times a month	At least once a week	Almost every day
1. You are treated with less courtesy than other people are.						
2. You are treated with less respect than other people are.						
3. You receive poorer service than other people at restaurants or stores.						
4. People act as if they think you are not smart.						
5. People act as if they are afraid of you.						
6. People act as if they think you are dishonest.						
7. People act as if they're better than you are.						
8. You are called names or insulted.						
9. You are threatened or harassed.						

Appendix C

COMMUNITY INTEGRATION MEASURE

Instructions: For each of the following statements, please indicate whether you agree or disagree:

	Always agree	Sometimes agree	Neutral	Sometimes disagree	Always disagree
1. I feel like part of this community, like I belong here.					
2. I know my way around this community.					
3. I know the rules in this community and I can fit in with them.					
4. I feel that I am accepted in this community.					
5. I can be independent in this community.					
6. I like where I'm living now.					
7. There are people I feel close to in this community.					
8. I know a number of people in this community well enough to say hello and have them say hello back.					
9. There are things that I can do in this community for fun in my free time.					
10. I have something to do in this community during that main part of my day that is useful and productive.					

Appendix D

EMAIL TO UNIVERSITY DIRECTORS OF DISABILITY SERVICES (STUDY ONE)

Re: Participants Needed: Focus Group on Experiences of Subtle Disability Discrimination

Greetings,

I hope this day finds you well. My name is Scott Fernelius and I am a third-year doctoral student in the Department of Counseling Psychology and Guidance Services at Ball State University. I am currently conducting a pilot study to explore discriminatory experiences of people with disabilities. The purpose of this research study is to examine the impact of microaggressions, which Sue et al. (2007) defined as “brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults toward people of color” (p. 271).

My aim is to expand this definition to people with disabilities and the subtle discriminatory interactions they encounter in everyday life. To do this, I am seeking participants for a group interview to discuss these experiences. The interview itself will be approximately 1.5 hours in length and will take place in early February at the Teacher’s College on the campus of Ball State University.

The results of this investigation promise to benefit therapists and social scientists by helping us to better understand how discriminatory attitudes and behaviors impact those who experience subtle disability discrimination. The study may also lead to increased public awareness regarding discrimination and encourage constructive dialogue that will reduce and eliminate its incidence. This study has received approval from Ball State University's Institutional Review Board (IRB). The informed consent document is attached to this email. If interested, please email me directly at: safernelius@bsu.edu

Thank you for your consideration.

--

Scott Fernelius, M.A.
Principal Investigator
Department of Counseling Psychology and Guidance Services
Ball State University
(765) 285-8040

Dr. Jacob Yui-Chung Chan, Ph.D. CRC
Dissertation Advisor
Assistant Professor
Department of Counseling Psychology and Guidance Services
Ball State University
ychan@bsu.edu
(765) 285-8040

Appendix E

FOCUS GROUP: SEMI-STRUCTURED INTERVIEW PROTOCOL

(1) FACILITATOR INTRODUCTION

Thank you for coming here today to participate in this focus group. The purpose of this group is to gain a better understanding of day-to-day discrimination. I am sure that you are familiar with overt forms of discrimination such as not being hired because of your disability or being made fun of. However, today we are interested in hearing about your experiences of subtle acts of being discriminated against because of your disability. This research will be important for two reasons. It will help us to better understand the emotional lives of persons with disabilities. It will deepen our understanding of the kinds of discrimination that people with disabilities face on a daily basis. The second is to understand the emotional impact that these acts of discrimination have on people with disabilities. As a person with a disability, these are questions that really matter to me.

(2) FACILITATOR QUESTIONS

- 1) How—if at all—do you feel that your disability impacts the ways in which others perceive or treat you?
- 2) What are some subtle ways that people treat you differently because of your disability?
- 3) Think about some stereotypes that exist about your disability. How have others subtly expressed their stereotypical beliefs about you?
- 4) How have others made you feel put down because of your disability? Can you give some examples?
- 5) In what ways have others made you feel like a second-class citizen?
- 6) What have people done or said to invalidate your experiences of being discriminated against?
- 7) What are some ways that you have dealt with these experiences?
- 8) What do you think the overall impact of these experiences has had on your life?
- 9) Think about a time when you were in a particular setting and the organization of which you were a part believed that they were addressing your disability well, but you felt differently. Can you tell me a little about that experience? What was happening that they weren't aware of?
- 10) Is there anything else you would like us to know?

(3) REGARDING FACILITATOR QUESTIONS

Questions are intended to elicit examples in the following life areas: family, career, education, social responsibility, and romantic relationships.

Appendix F

DEMOGRAPHIC QUESTIONNAIRE

I am:	A. Male B. Female C. Other
I identify as:	A. African American B. Hispanic/Latino C. Asian D. Caucasian E. Native American F. Other
I identify my sexual identity as:	A. Heterosexual B. Gay C. Lesbian D. Bisexual E. Transgender
Years of education:	A. Less than high school diploma or GED B. High school diploma or GED C. Some college D. Two year degree E. Four year degree F. Master's degree or beyond
My age is:	
Marital status:	A. Single B. Married C. Cohabiting D. Divorced E. Widowed
Socioeconomic status:	A. Less than \$20k B. \$20k to \$40k C. \$40k to \$60k D. \$60k to \$80k E. \$100k to \$150k F. \$150k and up
Work status:	A. Student B. Employed

	C. Unemployed D. Retired E. Social security
I identify my disability as (please describe in as much detail as you feel comfortable with):	
Disability status:	A. Congenital B. Acquired (please specify age of onset)

Appendix G

IRB APPROVAL LETTER (STUDY ONE)



Office of Research Integrity
Institutional Review Board (IRB)
2000 University Avenue
Muncie, IN 47306-0155
Phone: 765-285-5070

DATE: January 15, 2014

TO: Scott Femellus, M.A.

FROM: Ball State University IRB

RE: IRB protocol # 396436-7

TITLE: Examining the Microaggressive Experiences of People with Disabilities: A Pilot Study

SUBMISSION TYPE: Continuing Review/Progress Report

ACTION: APPROVED

DECISION DATE: January 15, 2014

EXPIRATION DATE: January 21, 2015

REVIEW TYPE: Expedited: This protocol had been determined by the board to meet the definition of minimal risk.

The Institutional Review Board has approved your Continuing Review/Progress Report for the above protocol, effective January 15, 2014 through January 21, 2015. All research under this protocol must be conducted in accordance with the approved submission and in accordance with the principles of the Belmont Report.

Review Type:

	Category 1: Clinical studies of drugs and medical devices
	Category 2: Collection of blood samples by Finger stick, Heel stick, Ear stick, or Venipuncture
	Category 3: Prospective collection of biological specimens for research purposes by noninvasive means
	Category 4: Collection of data through Non-Invasive Procedures Routinely Employed In Clinical Practice, excluding procedures involving Material (Data, Documents, Records, or Specimens) that have been collected, or will be collected solely for non-research purposes (such as medical treatment or diagnosis)
	Category 5: Research involving materials that have been collected or will be collected solely for non-research purposes.
	Category 6: Collection of Data from Voice, Video, Digital, or Image Recordings Made for Research Purposes

	Category 7: Research on Individual or Group Characteristics or Behavior or Research Employing Survey, Interview Oral History, Focus Group, Program Evaluation, Human Factors, Evaluation, or Quality Assurance Methodologies
x	Category 8: Continuing review of research previously approved by the convened IRB
	Category 9: Continuing review of research, not conducted under an investigational new drug application or Investigational device exemption where categories 2-8 do not apply but the IRB has determined and documented at a convened meeting that the research involves no greater than minimal risk and not additional risks have been identified.

As a reminder, it is the responsibility of the P.I. and/or faculty sponsor to inform the IRB in a timely manner:

- when the project is completed,
- if the project is to be continued beyond the approved end date,
- if the project is to be modified,
- if the project encounters problems, or
- if the project is discontinued.

Any of the above notifications must be addressed in writing and submitted electronically to the IRB (<http://www.bsu.edu/irb>). Please reference the IRB protocol number given above in any communication to the IRB regarding this project. Be sure to allow sufficient time for review and approval of requests for modification or continuation. If you have questions, please contact Jennifer Weaver at 765-285-5034 or jmweaver@bsu.edu.

In the case of an adverse event and/or unanticipated problem, you will need to submit written documentation of the event to IRBNet under this protocol number and you will need to directly notify the Office of Research Integrity (<http://www.bsu.edu/irb>) within 5 business days. If you have questions, please contact (ORI Staff).

Please note that all research records must be retained for a minimum of three years after the completion of the project or as required under Federal and/or State regulations (ex. HIPAA, FERPA, etc.). Additional requirements may apply.

Appendix H

INFORMED CONSENT DOCUMENT (STUDY ONE)

Ball State University Muncie, IN CONSENT TO ACT AS A HUMAN RESEARCH SUBJECT

Examining the Experiences of People with Disabilities

You are being asked to participate in a research study. Participation in this study is completely voluntary. Please read the information below and ask questions about anything that you do not understand before deciding if you want to participate. A researcher listed below will be available to answer your questions.

RESEARCH TEAM

Principal Investigator:

Name: Scott Fernelius
Department of Counseling Psychology
safernelius@bsu.edu

Faculty Advisor:

Dr. Jacob Yui-Chung Chan
Department of Counseling Psychology
ychan@bsu.edu

PURPOSE OF STUDY

The purpose of this study is to explore the experience of students with disabilities across personal, academic, and social aspects of their life.

SUBJECTS

You are eligible to participate in this study if you:

- Are age 18 or above.
- Are currently an undergraduate student enrolled in an academic program at Ball State University.

PROCEDURES

You will be asked to participate in a focus group interview to learn more about your experience of living with a disability. The focus group interview will take 1-2 hours to complete.

RISKS AND DISCOMFORTS

There is minimal risk associated with the participation of this study. There are no known harms or discomforts associated with this study beyond those encountered in normal daily life. You may experience slight emotional discomfort as the topics discussed may be considered personal and/or sensitive issues however participants may decline to comment on any given comment or question any time during the discussion. Please be aware that your answers or comments will be heard by other group members and that this may also cause you to experience slight emotional discomfort. If you experience any lingering emotional affects from this study, please feel free to contact the counseling center at 765-285-1736.

BENEFITS

There is no direct benefit of participation for the individual subject. Nevertheless, the discussion resulting from participation in the study is an opportunity to connect with others on campus realizing similar interpersonal and intrapersonal experiences. The findings of this study may help to better understand the experience of students with disabilities and help to develop social discourse in a positive direction.

ALTERNATIVES TO PARTICIPATION

The only alternative to participation in this study is not to participate.

CONFIDENTIALITY

No identifiable information will be collected about you. All research data will be stored on a laptop computer that is password protected or has encryption software. The researcher and faculty advisor named on the first page of this form will have access to study records. This data will remain confidential throughout the study. Data will be stored for three years in an electronic spreadsheet, which will be password protected. The electronic spreadsheet containing the data will be deleted from the principle investigator's hard drive three years after the close of the study.

IF YOU HAVE QUESTIONS

If you have any comments, concerns, or questions regarding the conduct of this research please contact the research team listed on the first page of this form. You may also contact the Ball State University Internal Review Board directly:

Director, Office of Research Integrity,
Ball State University, Muncie, IN 47306,
[765-285-5070](tel:765-285-5070)
irb@bsu.edu

VOLUNTARY PARTICIPATION STATEMENT

You should not sign this form unless you have read it and been given a copy of it to keep. **Participation in this study is voluntary.** You may refuse to answer any question or discontinue your involvement at any time without penalty or loss of benefits to which you might otherwise be entitled. Your signature below indicates that you have read the information in this consent form and have had a chance to ask any questions that you have about the study.

I agree to participate in the study.

Subject Signature

Date

Printed Name of Subject

Researcher Signature

Date

Printed Name of Researcher

Appendix I

FINAL ITEM POOL: MOBILITY MICROAGGRESSIONS SCALE

Theme One: Treatment of Students with Disabilities

Inappropriate Helping

1. Other people treat me as if I am helpless because of my disability.
2. I have received excessive praise for doing routine tasks without needing help from others.
3. A person refused to stop helping me, even after repeatedly telling them that I did not need help.
4. I have been helped by an individual even when I did not need or ask for assistance.
5. People hold the door for me in an effort to help without realizing that they are actually blocking my way.
6. I hear praise for performing simple tasks.

Special Treatment

7. People have lower standards for me because I have a disability.
8. People befriend me because it makes them feel good about themselves.
9. I have been given preferential treatment because of my disability.
10. I have felt like something was “handed” to me without effort because of my disability.
11. When standing in a line, people let me move ahead of them because of my disability.
12. People hover over me to ensure I do not feel left out during social gatherings.
13. Others make accommodations for me that I do not request.

Overly Cautious Treatment

14. Because of my disability, people act as if they are concerned their words or actions might offend me.
15. Because of my disability, people act as if they have to “walk on eggshells” around me.
16. People act as if they are unsure of how to interact with me because of my disability.
17. Because I use a wheelchair, people have apologized excessively for using casual phrases they thought might offend me (i.e., referring to me as a “stand-up” individual).
18. If I ask for help, people are concerned about saying no due to fear of offending me.
19. People avoid talking about my disability when they are around me.

Theme Two: Discrimination

Covert (sub-theme)

Assumption of Cognitive/Intellectual Disability

20. Others assume that I have a cognitive or intellectual disability because of my physical disability.
21. Someone spoke to me as if I were a child.
22. People treat me as if I’m less intelligent because of my disability.

- 23. Someone spoke to me in a deliberately slow manner because they assumed I had an intellectual disability.
- 24. People assume that because I use a wheelchair, I must also have an intellectual disability.
- 25. Someone assumed that I was uneducated based on my disability.
- 26. When people see me with a caregiver/personal assistant, they avoid talking to me and instead address my caregiver/personal assistant.

Others Amazed by Quality of Life

- 27. Someone acted surprised to learn that I am happy and enjoy my life.
- 28. I have been told that I am an inspiration in a way that felt condescending and embarrassing.
- 29. People act amazed when they learn I am actively involved with my community.
- 30. People act amazed when they find out I am able to drive a vehicle.
- 31. People express amazement when I tell them I am pursuing a college degree.
- 32. People tell me I am an inspiration because of my disability
- 33. If I go to a public place to socialize, people say things like, 'It's so good to see you out.'
- 34. Someone acted astonished to learn I am in a romantic relationship.

Unintentional Slights

- 35. Someone made an unintentionally offensive statement to me about my disability.
- 36. Someone attempted to excuse their offensive words about my disability by saying, "You're being too sensitive."
- 37. I have been told that I am too sensitive about my disability.
- 38. My privacy was invaded in public because a person was unsure of how to react my disability.
- 39. I was inappropriately asked about the nature of my disability.
- 40. People say offensive things about my disability without realizing it.
- 41. I have felt like the object of pity due to my disability.
- 42. A restaurant server automatically assumed that an able-bodied person in my party was responsible for the bill.

Overt (sub-theme)

Students with Disabilities "Not worthy of living"

- 43. Someone made me feel like my life is not worth living because I have a disability.
- 44. People treat me as if my life is less valuable than theirs because I have a disability.
- 45. I have been told that it would be better to have an abortion than to knowingly bring a child with a disability into the world.
- 46. I was told that it is selfish for people with disabilities to have children.
- 47. People act shocked to learn that I want to be partnered/married.

Feelings of Exclusion

- 48. I was passed over for a job or promotion because of my disability.
- 49. I received substandard service in a place of business due to my disability.
- 50. Getting hired at a job I am qualified for has been difficult because of my disability
- 51. An able-bodied individual told me I couldn't understand their experience because I have a disability.

52. My opinion was ignored in a group discussion because of my disability.
53. It is difficult for me to participate in group projects, as my classmates avoid working with me.
54. People avoided talking to me because of my disability.
55. People avoided eye contact with me because of my disability.
56. People avoided walking close to me on the street because of my disability.
57. People avoided sitting near me in public places because of my disability.
58. I was excluded during social gatherings because of my disability.
59. When my classmates throw a party, they avoid inviting me.

Theme Three: Systemic Barriers

Policy-Based (sub-theme)

Perceived as Social Burden

60. I was perceived as a burden due to my disability.
61. People view accommodating my disability as a waste of time and resources.
62. People only care about equal access for people with disabilities when threatened with legal action.
63. It is a struggle for me to obtain basic privileges (e.g., driver's license).
64. Even though my university provides accommodations for individuals with disabilities, it is difficult for me to access those accommodations.
65. Existing legislative policies make it difficult for me to obtain employment.

Location-Based (sub-theme)

Barriers to Accessibility

66. I was unable to attend a social function with friends because the location was not wheelchair accessible.
67. I was unable to engage in an activity I find enjoyable because the facilities were not wheelchair accessible.
68. I attempted to eat at a restaurant, but was denied due to a lack of wheelchair accessibility.
69. When going out for dinner, I was unable to go to the place of my choosing due to lack of wheelchair accessibility.
70. I was unable to use the restroom in a public place because it was not accessible to people with disabilities.

Appendix J

MOBILITY MICROAGGRESSIONS SCALE: 70-ITEM PARTICIPANT SURVEY

Instructions: Think about your experiences with disability. Please read each question and indicate how often each example has happened to you.

	This has never happened to me	Less than once per year	A few times per year	A few times per month	At least once per week	Almost every day
1. Even though my university provides accommodations for individuals with disabilities, it is difficult for me to access those accommodations.						
2. When people see me with a caregiver/personal assistant, they avoid talking to me and instead address my caregiver/personal assistant.						
3. People tell me I am an inspiration because of my disability.						
4. It is a struggle for me to obtain basic privileges (e.g., driver's license)						
5. I have felt like something was "handed" to me without effort because of my disability						
6. I was told that it is selfish for people with disabilities to have children.						
7. If I go to a public place to socialize, people say things like, 'It's so good to see you out.'						
8. People act amazed when they learn I am actively						

involved with my community.						
	This has never happened to me	Less than once per year	A few times per year	A few times per month	At least once per week	Almost every day
9. I have been helped by an individual even when I did not need or ask for assistance.						
10. Someone acted surprised to learn that I am happy and enjoy my life.						
11. People view accommodating my disability as a waste of time and resources.						
12. I have been told that I am too sensitive about my disability.						
13. I have been given preferential treatment because of my disability.						
14. People assume that because I use a wheelchair, I must also have an intellectual disability.						
15. My privacy was invaded in public because a person was unsure of how to react my disability.						
16. Someone spoke to me as if I were a child.						
17. A restaurant server automatically assumed that an able-bodied person in my party was responsible for the bill.						
18. People treat me as if my life is less valuable than theirs because I have a disability.						

	This has never happened to me	Less than once per year	A few times per year	A few times per month	At least once per week	Almost every day
19. People hover over me to ensure I do not feel left out during social gatherings.						
20. If I ask for help, people are concerned about saying no due to fear of offending me.						
21. Existing legislative policies make it difficult for me to obtain employment.						
22. I hear praise for performing simple tasks.						
23. People only care about equal access for people with disabilities when threatened with legal action.						
24. Someone made me feel like my life is not worth living because I have a disability.						
25. People avoided walking close to me on the street because of my disability.						
26. Because of my disability, people act as if they have to “walk on eggshells” around me.						
27. When my classmates throw a party, they avoid inviting me.						
28. Others assume that I have a cognitive or intellectual disability because of my physical disability.						
29. People express amazement when I tell them I am pursuing a college degree.						
30. Someone made an unintentionally offensive						

statement to me about my disability.						
	This has never happened to me	Less than once per year	A few times per year	A few times per month	At least once per week	Almost every day
31. When standing in a line, people let me move ahead of them because of my disability.						
32. I attempted to eat at a restaurant, but was denied due to a lack of wheelchair accessibility.						
33. Someone acted astonished to learn I am in a romantic relationship.						
34. A person refused to stop helping me, even after repeatedly telling them that I did not need help.						
35. I was unable to attend a social function with friends because the location was not wheelchair accessible.						
36. I was passed over for a job or promotion because of my disability.						
37. Others make accommodations for me that I do not request.						
38. People avoid talking about my disability when they are around me.						
39. I have been told that it would be better to have an abortion than to knowingly bring a child with a disability into the world.						
40. People befriend me because it makes them feel good about themselves.						

	This has never happened to me	Less than once per year	A few times per year	A few times per month	At least once per week	Almost every day
41. Someone spoke to me in a deliberately slow manner because they assumed I had an intellectual disability.						
42. My opinion was ignored in a group discussion because of my disability.						
43. People avoided sitting near me in public places because of my disability.						
44. People hold the door for me in an effort to help without realizing that they are actually blocking my way.						
45. People act as if they are unsure of how to interact with me because of my disability.						
46. I was perceived as a burden due to my disability.						
47. I was unable to use the restroom in a public place because it was not accessible to people with disabilities.						
48. Someone attempted to excuse their offensive words about my disability by saying, "You're being too sensitive."						
49. When going out for dinner, I was unable to go to the place of my choosing due to lack of wheelchair accessibility.						
50. I have received excessive praise for doing routine						

tasks without needing help from others.						
	This has never happened to me	Less than once per year	A few times per year	A few times per month	At least once per week	Almost every day
51. I was inappropriately asked about the nature of my disability.						
52. People act shocked to learn that I want to be partnered/married.						
53. I have felt like the object of pity due to my disability.						
54. Because I use a wheelchair, people have apologized excessively for using casual phrases they thought might offend me (i.e., referring to me as a “stand-up” individual).						
55. I received substandard service in a place of business due to my disability.						
56. Someone assumed that I was uneducated based on my disability.						
57. It is difficult for me to participate in group projects, as my classmates avoid working with me.						
58. I was unable to engage in an activity I find enjoyable because the facilities were not wheelchair accessible.						
59. People say offensive things about my disability without realizing it.						
60. People treat me as if I’m less intelligent because of my disability.						

61. I have been told that I am an inspiration in a way that felt condescending and embarrassing.						
	This has never happened to me	Less than once per year	A few times per year	A few times per month	At least once per week	Almost every day
62. People have lower standards for me because I have a disability.						
63. Getting hired at a job I am qualified for has been difficult because of my disability.						
64. An able-bodied individual told me I couldn't understand their experience because I have a disability.						
65. People avoided talking to me because of my disability.						
66. Because of my disability, people act as if they are concerned their words or actions might offend me.						
67. People avoided eye contact with me because of my disability.						
68. People act amazed when they find out I am able to drive a vehicle.						
69. I was excluded during social gatherings because of my disability.						
70. Other people treat me as if I am helpless because of my disability.						

Appendix K

EMAIL TO UNIVERSITY DIRECTORS OF DISABILITY SERVICES (STUDY TWO)

Re: Participants Needed: Survey on Experiences of Subtle Disability Discrimination

Greetings,

I am looking for students with disabilities requiring the use of a wheelchair to complete a survey exploring their experiences of subtle discrimination. My aim is to explore the experiences of people with disabilities and the discriminatory interactions they encounter in everyday life, focusing specifically on disabilities that require the permanent use of a wheelchair.

All participants who complete the survey and meet eligibility requirements (disability that requires permanent use of a wheelchair, currently enrolled as an undergraduate or graduate student in an academic program at a public university) will receive a \$10 Amazon gift card. This survey should take about 30 minutes to complete. Please remember that your participation will be completely anonymous; you will not be asked for your name or any other identifying information. Your responses will only be presented as group data. To participate please click the link below:

https://bsu.qualtrics.com/SE/?SID=SV_eVdzFAtGJaiEfNX

This project has received approval from the Ball State University Institutional Review Board. Gift cards will be distributed anonymously via email upon successful completion of the survey.

Thank you for your consideration. Your participation is greatly appreciated!

Sincerely,

--

Scott Fernelius, M.A.
Principal Investigator
Department of Counseling Psychology and Guidance Services
Ball State University
safernelius@bsu.edu
(765) 285-8040

Dr. Jacob Yui-Chung Chan, Ph.D. CRC
Dissertation Advisor
Assistant Professor
Department of Counseling Psychology and Guidance Services
Ball State University
ychan@bsu.edu
(765) 285-8040

Appendix L

IRB APPROVAL LETTER (STUDY TWO)



Office of Research Integrity
Institutional Review Board (IRB)
2000 University Avenue
Muncie, IN 47306-0155
Phone: 765-285-5070

DATE: January 14, 2015
TO: Scott Femellus, MA
FROM: Ball State University IRB
RE: IRB protocol # 695830-1
TITLE: Development of the Mobility Microaggressions Scale
SUBMISSION TYPE: New Project
ACTION: APPROVED
DECISION DATE: January 14, 2015
REVIEW TYPE: EXEMPT

The Institutional Review Board reviewed your protocol on January 14, 2015 and has determined the procedures you have proposed are appropriate for exemption under the federal regulations. As such, there will be no further review of your protocol, and you are cleared to proceed with the procedures outlined in your protocol. As an exempt study, there is no requirement for continuing review. Your protocol will remain on file with the IRB as a matter of record.

Exempt Categories:

	Category 1: Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
X	Category 2: Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior
	Category 3: Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under category 2, if: (i) the human subjects are elected or appointed officials or candidates for public office; or (ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
	Category 4: Research involving the collection of study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

	Category 5: Research and demonstration projects which are conducted by or subject to the approval of Department or agency heads, and which are designed to study, evaluate or otherwise examine: (I) public benefit or service programs; (II) procedures for obtaining benefits or services under those programs; (III) possible changes in methods or levels of payment for benefits or services under these programs.
	Category 6: Taste and food quality evaluation and consumer acceptance studies, (I) if wholesome foods without additives are consumed or (II) if a food is consumed which contains a food ingredient at or below the level and for a use found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

Editorial Notes:

1. Exempt

While your project does not require continuing review, it is the responsibility of the P.I. (and, if applicable, faculty supervisor) to inform the IRB if the procedures presented in this protocol are to be modified or if problems related to human research participants arise in connection with this project. **Any procedural modifications must be evaluated by the IRB before being implemented, as some modifications may change the review status of this project.** Please contact (ORI Staff) if you are unsure whether your proposed modification requires review or have any questions. Proposed modifications should be addressed in writing and submitted electronically to the IRB (<http://www.bsu.edu/irb>) for review. Please reference the above IRB protocol number in any communication to the IRB regarding this project.

Reminder: Even though your study is exempt from the relevant federal regulations of the Common Rule (45 CFR 46, subpart A), you and your research team are not exempt from ethical research practices and should therefore employ all protections for your participants and their data which are appropriate to your project.

Appendix M

INFORMED CONSENT DOCUMENT (STUDY TWO)

Ball State University Muncie, IN CONSENT TO ACT AS A HUMAN RESEARCH SUBJECT

Development of the Mobility Microaggressions Scale

You are being asked to participate in a research study. Participation in this study is completely voluntary. Please read the information below and ask questions about anything that you do not understand before deciding if you want to participate. A researcher listed below will be available to answer your questions.

RESEARCH TEAM

Principal Investigator:

Name: Scott Fernelius
Department of Counseling Psychology
safernelius@bsu.edu

Faculty Advisor:

Dr. Jacob Yui-Chung Chan
Department of Counseling Psychology
ychan@bsu.edu

PURPOSE OF STUDY

The purpose of this study is to explore the experience of students with disabilities who require the permanent use of a wheelchair across personal, academic, and social aspects of their lives. I am looking for students with disabilities requiring the use of a wheelchair to complete a survey exploring their experiences of subtle discrimination. The purpose of this research study is to examine the impact of microaggressions, which Sue et al. (2007) defined as “brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults toward people of color” (p. 271).

SUBJECTS

You are eligible to participate in this study if you:

- Are age 18 or above.
- Are currently an undergraduate or graduate student enrolled in an academic program at a public university.
- Have a disability requiring the permanent use of a wheelchair.

PROCEDURES

You will be asked to complete one survey examining the experiences of people with disabilities. This survey should take about 30 minutes to complete.

RISKS AND DISCOMFORTS

There is minimal risk associated with the participation of this study. You may experience slight emotional discomfort as the survey questions may encompass personal and/or sensitive issues, however, participants may decline to answer a given item/question at any time during completion of the survey. If

you are in need of any counseling for any emotional distress, please contact your university's counseling center.

BENEFITS

There is no direct benefit of participation for the individual subject. The findings of this study may help to better understand the experience of students with disabilities and help to develop social discourse in a positive direction.

ALTERNATIVES TO PARTICIPATION

The only alternative to participation in this study is not to participate.

SUBJECTIVE INCENTIVES/INDUCEMENTS TO PARTICIPATE

Participants who complete the survey and meet eligibility requirements (disability that requires permanent use of a wheelchair, currently enrolled as an undergraduate or graduate student in an academic program at a public university) will receive a \$10 Amazon gift card. In order to maintain participants' anonymity, names for the gift cards will be collected separately. After completing the survey, participants will be instructed to send an email to a designated email address with their name.

ANONYMOUS

No identifiable information will be collected about you. All research data will be stored on a laptop computer that is password protected or has encryption software. The researcher and faculty advisor named on the first page of this form will have access to study records. This data will remain anonymous throughout the study. Data will be stored for three years in an electronic spreadsheet, which will be password protected. The electronic spreadsheet containing the data will be deleted from the principle investigator's hard drive three years after the close of the study.

IF YOU HAVE QUESTIONS

If you have any comments, concerns, or questions regarding the conduct of this research please contact the research team listed on the first page of this form. You may also contact the Ball State University Internal Review Board directly:

Director, Office of Research Integrity,
Ball State University, Muncie, IN 47306,
[765-285-5070](tel:765-285-5070)
irb@bsu.edu

VOLUNTARY PARTICIPATION STATEMENT

Participation in this study is voluntary. You may refuse to answer any question or discontinue your involvement at any time without penalty or loss of benefits to which you might otherwise be entitled. If you wish to participate, please click the link located in the email to which this was attached to and proceed with the study.